

Britis

NORT

British Association for the Advancement of
Science

IPSWICH, 1895

TENTH REPORT

ON THE

NORTH-WESTERN TRIBES OF CANADA

British

On the Nor
mittee, co
R. G. H.

THE COMMITTEE
work by send
of British Col

In conclus
ing of 1884
to return tha
took up the ta
Western Trib
Canadian Gov
tribution to th
brought toget
formation, cou
probably have
timely enterpr

For conver

the Committee

Circular of

Report on

dence with Fa

Report on

by Mr. Hale.

Notes on I

IV.)

Report on

by Mr. Hale.

Remarks on

First Repor

(Report V.)

Remarks on

port VI.)

Second Rep

Boas. (Report

Introduction

British Association for the Advancement of Science.

On the North-Western Tribes of Canada.—Tenth Report of the Committee, consisting of Dr. E. B. TYLOR, Dr. G. M. DAWSON, Mr. R. G. HALIBURTON, and Mr. H. HALE.

[PLATE.]

THE Committee, as was expected last year, are now able to complete their work by sending in the final report by Dr. Franz Boas on 'The Indians of British Columbia.'

In concluding the investigations which have since the Montreal Meeting of 1884 been carried on under their direction, the Committee desire to return thanks for the liberality with which the British Association took up the task of preserving records of the Anthropology of the North-Western Tribes of the Dominion of Canada. With equal generosity, the Canadian Government recognised the necessity of the work by large contribution to the funds at the disposal of the Committee. Thus has been brought together a collection of valuable physical and philological information, coupled with accounts of native culture, much of which would probably have changed or disappeared within a few years had not this timely enterprise been undertaken.

For convenience of reference, the principal contributions embodied in the Committee's series of Reports are here set down, viz. :—

Circular of Inquiry drawn up by Committee. (Report III.)

Report on the Blackfoot Tribes, by Mr. Horatio Hale, in correspondence with Father Lacombe and Rev. John McLean. (Report I.)

Report on the Blackfoot Tribes, by Rev. Edward F. Wilson, and Notes by Mr. Hale. (Report III.)

Notes on Indians of British Columbia, by Dr. Franz Boas. (Report IV.)

Report on the Sarcee Indians, by Rev. Edward F. Wilson, and Notes by Mr. Hale. (Report IV.)

Remarks on North American Ethnology, by Mr. Hale. (Report V.)

First Report on the Indians of British Columbia, by Dr. Franz Boas. (Report V.)

Remarks on the Ethnology of British Columbia, by Mr. Hale. (Report VI.)

Second Report on the Indians of British Columbia, by Dr. Franz Boas. (Report VI.)

Introduction, by Sir Daniel Wilson. (Report VII.)

Third Report on the Indians of British Columbia, by Dr. Franz Boas. (Report VII.)

Physical Characteristics of the Tribes of the North Pacific Coast, by Dr. Franz Boas. (Report VII.)

Remarks on Linguistic Ethnology, by Mr. H. Hale. (Report VIII.)

Report on the Kootenay Indians, by Dr. A. F. Chamberlain. (Report VIII.)

Fourth Report on the Indians of British Columbia (Indian Tribes of Lower Fraser River), by Dr. Franz Boas. (Report IX.)

Fifth Report on the Indians of British Columbia, by Dr. Franz Boas. (Report X.)

Fifth Report on the Indians of British Columbia. By FRANZ BOAS.

During the months from September to December 1894, I revisited British Columbia under instructions of the Committee, the object of the journey being to fill, so far as possible, gaps left in previous investigations. I considered four points to be of particular importance: the anthropometry of those portions of the province which were not covered by previous work; an investigation of a Tinnéh tribe on the extreme northern part of the coast of which I had heard reports, but which has never been described; a study of the customs of the Hē'iltsuq, and further inquiries in regard to the Tinnéh tribe of Nicola Valley which was first described by Dr. G. M. Dawson ('Trans. Royal Soc. Canada,' vol. ix. 1891, sec. ii. p. 23).

On account of lack of time I was unable to visit the Hē'iltsuq, and for the same reason I delegated the work in Nicola Valley to Mr. James Teit, of Spence's Bridge, who is thoroughly conversant with the language and the customs of the Ntlakyā'pamuq. His report will be found embodied in the following pages.

The subject matter which I collected on my journey is presented in the following manner:—

I. Physical Characteristics of the Tribes of the North Pacific Coast (p. 3).

II. The Tinnéh tribe of Nicola Valley, by Mr. James Teit (p. 30).

III. The Tinnéh tribe of Portland Canal (p. 34).

IV. The Nass River Indians (p. 48).

V. Linguistics (p. 62).

1. Nisk'a'.

2. Tsetseā'ut.

I have to express my obligation for valuable help extended in the course of my work to the Rev. Mr. Collison, of Kinkolith; Mr. George Huat, of Fort Rupert; Mr. C. O. Hastings, of Victoria, British Columbia; Mr. James Teit, of Spence's Bridge; and Rev. Father Le Jeune, of Kamloops.

The following alphabet has been used in this report:—

The vowels have their Continental sounds, namely: *a* as in *father*; *e* like *a* in *mate*; *i* as in *machine*; *o* as in *note*; *u* as in *rule*.

In addition the following are used: *ä*, *ö* as in German; *ä*=*aw* in *law*; *ê* as in *tell*; *î* as in *hill*; *ô* as in German *voll*; *ë*=*e* in *flower* (Lepsius's *g*).

Among the consonants the following additional letters have been used: *g*, velar *g*; *k*, velar *k*; *q*, the German *ch* in *bach*; *h*, the German *ch* in *ich*; *q*, between *q* and *h*; *c*=*sh* in *shore*; *tl*, an explosive *l*; *dl*, a palatal *l* (dorso-apical); *!*, increased stress of articulation; *'*, the mouth assumes the position for the articulation of *u*.

I. Ph

In the S
around H
considerably
desirable to
country, in
to discover
this region
in the regi
country is i
language wh
people of th
Fraser and
divisions of
live between
Ntlakyā'par
point above
miles up Fra
Siding to A
Fraser River
the Cawā'qa
I kept these

Furtherm
of the Comm
coast are co
among the N
of the measu
of the Comm
Committee o
Anthropolog
have refraine
at that time,
limits.

A glance
type takes p
For this rea
among each
appreciable c
combined the
tribes of the
second, tribe
tribes of the
Island, of C
bracing the I
Fort Rupert.

The follo

I. PHYSICAL CHARACTERISTICS OF THE TRIBES OF THE NORTH PACIFIC COAST.

In the Seventh Report of the Committee I pointed out that the region around Harrison Lake is inhabited by a peculiar type of man, differing considerably from the types found in the neighbourhood. It seemed desirable to investigate the characteristics of the people of the surrounding country, in order to better define the locality inhabited by this type and to discover in what manner the transition between the distinct types of this region takes place. For this purpose I collected anthropometric data in the region lying between Harrison Lake and Thompson River. This country is inhabited by the Ntlakyā'pamuq, a tribe speaking a Salish language which has developed very slight dialectic differences only. The people of this tribe live in a great many villages which are scattered along Fraser and Thompson Rivers; but the villages are grouped in five subdivisions of the tribe, which are named as follows: the Utā'mk't, who live between Spuzzum and Keefers; the Ntlakyāpamuq'ō'ē, or real Ntlakyā'pamuq, whose territory extends from a little above Keefers to a point above Thompson Siding on Thompson River, and about twenty miles up Fraser River from Lytton; the Nkamteí'nemuq, from Thompson Siding to Ashcroft on Thompson River; Stlaqā'yuq, on the upper part of Fraser River, between the Lillooet and the Ntlakyāpamuq'ō'ē; and finally, the Cawā'qamuq, of Nicola Valley. For the purpose of my investigation I kept these divisions separate.

Furthermore, the anthropometric material given in the Seventh Report of the Committee was very insufficient so far as the northern parts of the coast are concerned. For the purpose of filling this gap I collected data among the Nass River Indians and among the Kwakiutl. The technique of the measurements was the same as that described in the Seventh Report of the Committee. I have added to the material which I collected for the Committee other data which were collected under my direction for the Anthropological Department of the World's Columbian Exposition; but I have refrained from the use of the head measurements which were gathered at that time, as these would extend the scope of the Report beyond desirable limits.

A glance at the tables (p. 23) will show that a very material change of type takes place somewhere between Vancouver Island and Skeena River. For this reason it is necessary to compare the various Kwakiutl tribes among each other before combining them, in order to see if there is any appreciable difference between them. According to their location, I have combined the material which I collected in the following manner: First, tribes of the Nak'oartók group, embracing the Goasila and Nak'oartók; second, tribes of the Koskimo group, embracing the extreme northern tribes of the Ngotka, the Kwakiutl tribes of the west coast of Vancouver Island, of Cape Scott and Newetsee; third, the Kwakiutl group, embracing the Kwakiutl proper and all the tribes of this group south-east of Fort Rupert.

The following tables show the results of this comparison:—

Kwakiutl.

STATURE OF MEN (20-59 years of age).

Mm..	.	.	.	{	1560—	1580—	1600—	1620—	1640—	1660—	1680—	1700—	1720—	1740—	Average	Number of Cases
					1579	1599	1619	1639	1659	1679	1699	1719	1739	1759		
Nak'oatók	.	.	.	.	—	1	1	1	1	1	—	1	2	—	1662	8
Kwakintl.	.	.	.	.	2	2	—	1	3	2	1	1	—	1	1641	13
Koskimo.	.	.	.	.	—	5	2	4	3	1	1	2	—	1	1637	19
Total	.	.	.	.	2	8	3	6	7	4	2	4	2	2	1644	40

STATURE OF WOMEN (17-59 years of age).

Mm.	{	1480— 1479	1500— 1519	1520— 1539	1540— 1559	1560— 1579	1580— 1599	1600— 1619	1620— 1639	Average	Number of Cases
Nak'oartók . . . . .	.	—	1	3	—	1	—	1	—	1534	7
Kwak'iatl . . . . .	.	1	3	—	1	1	—	—	1	1523	9
Koskimo . . . . .	.	—	2	2	4	3	4	2	1	1545	20
Total . . . . .	.	1	6	5	5	5	4	3	2	1537	36

BREADTH OF FACE OF MEN (20 years and over).

Mm.	138 139	{	140 141	142 143	144 145	146 147	148 149	150 151	152 153	154 155	156 157	158 159	160 161	162 163	Average	Number of Cases
Nak'oatök	.	.	—	—	—	—	1	2	2	—	3	1	—	1	154.6	10
Kwakitl.	.	.	1	—	1	4	2	3	2	—	1	—	—	—	147.9	15
Koskimo.	.	.	—	—	5	4	3	2	5	1	—	3	1	—	150.3	24
Total	.	.	1	—	6	8	6	7	9	1	4	4	1	1	150.4	49

BREADTH OF FACE OF WOMEN (17 years and over).

[illegible]

BREADTH OF FACE OF WOMEN (17 years and over).

BREADTH OF FACE OF WOMEN (17 years and over).																
Mm.	132 133	134 135	136 137	138 139	140 141	142 143	144 145	146 147	148 149	150 151	152 153	154 155	156 157	Average	Number of Cases	
Nak'ooartók	—	—	—	—	2	—	1	2	2	1	—	—	1	146.7	9	
Kwakiatl.	—	1	—	2	1	1	2	1	1	1	—	—	—	143.4	10	
Koskimo	1	2	1	2	3	3	5	5	—	—	—	—	—	141.8	22	
Total	1	3	1	4	6	4	8	8	3	2	—	—	1	143.1	41	

BREADTH OF FACE OF WOMEN (17 years and over).																
Mm.	132 133	134 135	136 137	138 139	140 141	142 143	144 145	146 147	148 149	150 151	152 153	154 155	156 157	Average	Number of Cases	
Koskimo	—	—	—	—	5	4	3	2	5	1	—	3	1	—	150.3	
Total	1	1	—	—	6	8	6	7	9	1	4	4	1	1	150.4	

HEIGHT OF FACE OF MEN (20-59 years of age).

Mm..	.	.	.	{	116 117	118 119	120 121	122 123	124 125	126 127	128 129	130 131	132 133	134 135	136 137	138 139	140 141	Average	Number of Cases
Nak'oariók	.	.	.	.	1	—	—	1	1	2	—	—	—	2	1	—	2	131.7	9
Kwakiutl.	.	.	.	.	—	1	1	—	1	2	1	2	2	1	1	—	1	128.4	14
Koskino	.	.	.	.	—	1	1	—	2	4	4	4	2	1	1	—	—	128.4	20
Total	.	.	.	.	2	1	2	1	4	8	5	6	4	4	3	—	3	129.1	43

HEIGHT OF FACE OF WOMEN (17-59 years of age).

Mm.	.	.	.	.	{	106 107 108	110 111 112	112 113 114	114 115 116	116 117 118	120 121 122	122 123 124	124 125 126	126 127 128	128 129 130	130 131 132	132 133 134	134 135 136	136 137 138	Average	Number of Cases
Nak'oartök	.	.	.	.	.	—	1	—	—	—	—	—	—	1	2	—	—	—	—	123.8	8
Kwakintl.	.	.	.	.	.	—	1	—	2	1	1	—	—	1	1	—	—	—	—	119.2	9
Kostimo.	.	.	.	.	.	—	—	1	1	2	3	1	1	—	3	—	—	—	—	122.1	20
Total	.	.	.	.	.	1	2	1	3	4	4	4	1	2	6	3	—	1	—	121.8	37

BREADTH OF NOSE OF MEN (20-59 years of age).

Mm.	35	36	37	38	39	40	41	42	43	44	45	46	Average	Number of Cases
Nak'oartók	—	—	—	1	2	1	1	2	—	1	—	—	40.6	8
Kwakutl.	4	1	2	2	1	1	—	—	3	—	—	—	38.1	14
Koskimo	—	1	1	5	5	4	—	3	—	—	—	1	39.5	20
Total	4	2	3	8	8	6	1	5	3	1	—	1	39.3	42

BREADTH OF NOSE OF WOMEN (17-59 years of age).

Mm.	30	31	32	33	34	35	36	37	38	39	Average	Number of Cases
Nak'oartók	—	1	—	—	—	2	—	2	1	1	35.0	7
Kwakutl.	1	1	1	1	—	3	1	—	1	—	33.9	9
Koskimo	—	1	1	2	2	6	1	3	1	3	35.4	20
Total	1	3	2	3	2	11	2	5	3	4	35.2	36

HEIGHT OF NOSE OF MEN (20-59 years of age).

Mm.	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	Average	Number of Cases
Nak'oartók	—	—	—	—	1	—	1	1	—	4	—	—	—	1	—	1	57.0	9
Kwakutl.	1	—	—	1	2	1	1	1	2	2	2	—	1	—	—	—	54.8	14
Koskimo	1	—	—	1	2	1	1	2	1	4	4	2	1	—	—	—	55.7	20
Total	2	—	—	2	5	2	3	4	3	10	6	2	2	1	—	1	55.7	43

HEIGHT OF NOSE OF WOMEN (17-59 years of age).

Mm.	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	Average	Number of Cases
Nak'oartók	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51.7	7
Kwakutl.	1	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48.8	9
Koskimo	1	1	2	1	1	2	1	3	—	2	3	3	—	1	1	1	—	1	—	—	—	—	1	—	53.1	20
Total	1	2	2	2	2	2	1	3	1	4	3	4	—	2	2	2	—	2	—	—	—	—	1	—	51.4	36

It app
of face of
that of th
doubtful
seen that
Indians, t

In ord
among the
of deforma
front and
upon the d
among all
deformatio
the materi
only, mode
be seen fro
finer distin
deformed,
strongly d
embrace c
being grad
the followi

Moderately
Considerab
Strongly d
Very stron

This ta
strongly d
represented

Length of
Breadth of
Breadth of
Height of

The dif
deformation
of head an
of deforma
in which th
reveal any
latter is cor
while reg

While

It appears that the three groups are quite uniform. Possibly the breadth of face of the most northern group, the Nak'oartók, is a little larger than that of the others, but the number of cases is so small that it remains doubtful if there is any real difference between the types. It will be seen that the three tribes differ very considerably from the Nass River Indians, their faces being much higher and narrower.

In order to prove properly the uniformity of the material collected among the Kwakiutl, it is necessary to take into consideration their habit of deforming the head by means of a pressure brought to bear upon the front and sides of the head. Possibly the practice might have an effect upon the development of the face, which differs much from the form found among all the neighbouring tribes. In order to decide if the artificial deformation has any influence upon the form of the face, I have divided the material into three groups:—Heads not deformed or slightly deformed only, moderately deformed heads, and strongly deformed heads. As will be seen from the tables showing the measurements of individuals, I made finer distinctions when recording the original observations, namely:—Not deformed, slightly deformed, moderately deformed, considerably deformed, strongly deformed, and very strongly deformed. The first two classes embrace children and young persons only, the practice of deformation being gradually abandoned. Leaving these out of consideration, we find the following numbers of individuals in each class:—

—	Men	Women	Men	Women
Moderately deformed .	25	9	59 %	32 %
Considerably deformed .	8	7	19 %	25 %
Strongly deformed .	9	9	22 %	32 %
Very strongly deformed .	—	3	—	11 %

This table shows that the heads of female children were much more strongly deformed than those of male children, and that the deformation represented in each group is stronger among women than among men.

—	Slightly Deformed	Moderately Deformed	Much Deformed
Length of Head { Men . .	191.6	196.7	195.6
Length of Head { Women . .	186.3	187.4	191.2
Breadth of Head { Men . .	158.7	160.3	153.6
Breadth of Head { Women . .	153.4	154.0	147.0
Breadth of Face { Men . .	146.3	151.6	150.7
Breadth of Face { Women . .	143.2	143.4	143.1
Height of Face { Men . .	128.4	130.1	129.2
Height of Face { Women . .	118.6	119.7	123.6

The differences exhibited in this table show clearly that a strong deformation of the kind practised by the Kwakiutl increases the length of head and diminishes the breadth of head; but that moderate degrees of deformation do not influence materially the lower portion of the skull, in which the greatest breadth of the head is found. The table does not reveal any influence upon the dimensions of the face, so that, so far as the latter is concerned, we may consider all the measured individuals together, without regard to the degree of deformation of the head.

While the preceding discussion has shown that the tribes of the

Kwakiutl, so far as they are represented in my measurements, belong to one type, the tables reveal considerable differences among the subdivisions of the Ntlakyā'pamuq. Besides the groups named above, I subdivided the Utā'mk't into two groups, that of Spuzzum and that of the villages higher up Fraser River. Unfortunately, in the limited time at my disposal, I was unable to obtain measurements of the Stlaqā'yūq of Fraser River and of the Cawā'qamuq of Nicola Valley. A study of the last-named group would be of interest on account of the admixture of Tinnē blood in this region.

In the following pages the measurements and a few tables which show the principal results obtained by their means are given.

It will be seen (pp. 9 and 10) that the statures of men and women of the different tribes are nearly arranged in the same order, differences appearing only in cases where the number of observations is very small. I have given the averages of the various series, not because I consider the averages as the typical values of the tribes, but because they give a convenient index for purposes of comparison. The table shows a gradual decrease in stature as we go southward along the coast from Alaska to Fraser River. In the series for men the stature decreases from 173 cm. among the Tlingit to 169 cm. among the Haida and Tsimshian; while the Nass River tribes, who live farther inland, and who are probably mixed with Tinnē tribes of the interior, are only 167 cm. tall, the Tinnē of the interior being in their turn only 164 cm. tall. As we proceed southward, the stature decreases to 166 cm. among the Bilqula, 164 among the Kwakiutl, 162 in the Delta of Fraser River, and reaches its minimum of 158 cm. on the shores of Harrison Lake. As we go southward, the stature increases again, but its distribution becomes very irregular. The Salish tribes of Puget Sound and the Yakonan, Tinnē, and other tribes of Oregon have a stature of 165 cm. It seems that the Clallam and Nanaimo represent a taller people, but I am not quite certain of this, as some of the taller half-breeds may have been included in these series. On Columbia River the Chinook, who extend from Dalles to the coast, represent a taller type of a stature of 169 cm., which may be considered as a continuation of the tall Sahaptin type, which has a stature of 170 cm. South of the Oregonian Tinnē the stature increases slightly, reaching 168 cm. among the Klamath, and sinking again to 166 among the Hoopa. The tribes of California, who lived north of San Francisco, and who are gathered on the Round Valley Reservation, near Cape Mendocino, represent a very short type of 162 cm. only, which is also distinguished by its elongated head. When we consider the stature of the inland tribes, we may say that the stature decreases north and south from Columbia River. The Sahaptin, a people of a stature of 170 cm., represent the tallest type; northward we find the Spokane and Okanagan 168 cm. tall, the Shuswap of South Thompson River of the same stature, while those of North Thompson River measure 167 cm. only. The Chilcotin measure only 164 cm. Along Columbia River the tall stature extends to the sea. In the part of Oregon east of the Cascade Range, and in western Nevada, we find statures of 168 cm., while the Shoshone tribes of Idaho and Utah measure 166 cm. only.

I have added to these tribes the Eskimo of Alaska and those of Labrador. It will be seen that, while the latter are exceedingly short,

15	34	35	36	37	38	39	40	41	42
Willy Bailey	Thomas Trounce	Luke Nelson K'ads	William Pollard	Moses Bell	Charles Woods	Matthew Haldane	Heber Watson	Chief Mountain	Philip Latimer
Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Gyitka'n	Nisk'a'	Taimshian
16	40	45	55	58	60	62	65	67	65-70
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,634	1,677	1,625	1,644	1,645	1,627	1,623	1,633 ¹⁰	1,573 ¹¹	— ¹²
1,308	1,373	1,328	1,333	1,332	1,371	1,342	1,331	1,282	—
716	774	745	756	728	779	762	718	720	—
1,694	1,798	1,730	1,761	1,740	1,810	1,735	1,685	1,647	—
900	911	904	890	915	840	865	900	846	795
379	385	378	402	373	400	418	400	388	357
189	195	205	204	206	194	197	199	191	194
158	159.5	158	164	162	158	163	160	161	169
123	119	119	124	123	128	125	120	124	113
148	158	152.5	159	149	161	167	155	156	158
50	57	50	53	52	51	52	54	49	53
37	41	39	46	42	47	49	43	41	41
83.6	81.8	77.1	80.4	78.6	81.4	82.7	80.4	84.3	87.1
83.1	77.5.3	78.0	78.0	82.6	79.5	74.9	77.4	79.5	71.5
74.0	71.9	78.0	86.8	80.8	92.2	94.2	79.6	83.7	77.4
43.9	44.6.1	45.7	46.1	44.1	47.8	47.0	44.0	45.9	—
103.9	107.0	106.1	107.4	105.5	111.1	107.1	103.4	104.9	—
55.2	54.2	55.5	54.3	55.5	51.5	53.4	55.2	53.9	—
23.3	22.9	23.2	24.5	22.6	24.5	25.8	24.5	24.7	—

her of Nyunpowder.
Large

* Son of No 41. Right leg broken.

Number.	Males			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	1	2	3																			
Name.	Jonathan De'ejeli	Timothy	Levi	James Stewart	Charlie Ward	Philip Latimer	Arthur Nelson	Matthew Forster	John McNeill	Perry Barton	Gasper Russ	Andrew Nelson	Matthew Gurney	Mac Kyebo'	John Green	Harry Forster	Stephen Barton	Willy Bailey	James Ward	Peter Stafford	Peter Watson	Charles Tosi
Tribe	Ts'ets'at	Ts'ets'at	Ts'ets'at	Niska'	Niska'	F. Tsimshian (No. 42) M. Niska'	Niska'	Niska'	Niska'	F. Niska' M. Gyitka'n	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	F. Gyitka'n M. Niska'	Niska'
Age	14	21	55	6	6	9	10	10	10	11	13	14	14	14	15	16	16	16	17	17	20	20
Height, standing	mm. 1,600	mm. 1,650	mm. 1,570	mm. 1,127	mm. 1,073	mm. 1,208	mm. 1,273	mm. 1,349	mm. 1,286	mm. 1,320	mm. 1,421	mm. 1,488	mm. 1,578	mm. 1,545	mm. 1,630	mm. 1,629	mm. 1,567	mm. 1,634	mm. 1,668	mm. 1,643	mm. 1,605	mm. 1,62
Height of shoulder	1,322	—	1,303	880	812	947	1,023	1,107	1,021	1,040	1,141	1,206	1,285	1,250	1,305	1,346	1,274	1,308	1,364	1,350	1,310	1,33
Length of arm	678	—	718	495	466	527	559	564	584	549	636	649	715	683	700	739	697	716	761	739	694	72
Finger-reach	1,591	—	1,662	1,168	1,102	1,208	1,303	1,334	1,334	1,300	1,468	1,535	1,650	1,640	1,647	1,724	1,593	1,694	1,766	1,734	1,680	1,69
Height, sitting	868	—	861	640	596	670	720	708	692	714	757	790	856	807	882	869	850	900	914	895	890	90
Width of shoulder	351	—	352	238	238	254	275	272 (?)	261	280	306	328	348	342	363	396	378	379	390	384	375	30
Length of head	190	191	183	172	179	173	184	178	184	171	178	188	186	180	181	188	188	189	192	186	187	19
Breadth of head	158	153	157	140	144	151	151	155	147	155	144	152.5	159	161	157.5	154	159	158	154.5	157	157	16
Height of face	110	128	122	92	93	95	103	102	105	99	100	110	112	112	121	119	122	123	119	119	123	11
Breadth of face	146	146	151	120	123.5	128	133	135	135	135	134	138	143	145	146.5	151	146	148	149	149	142	14
Height of nose	47	50	56	34	37	37	39	42	46	39	38	43	46	47	48	45	50	50	50	54	48	4
Breadth of nose	41	41	43	30	30.5	31	33	34	34	35	34	38	40	37	41	37	39	37	41	40	43	4
Length-breadth index	83.2	80.1	85.8	81.4	80.4	87.3	82.1	87.1	79.9	89.1	80.9	81.2	85.5	89.4	87.1	81.9	84.6	88.6	80.5	84.4	84.0	83
Facial index	75.3	87.7	80.8	76.7	75.3	74.2	77.5	75.6	77.8	73.4	74.7	79.7	78.3	77.3	82.6	78.8	83.6	83.1	79.9	79.9	86.6	74
Nasal index	87.2	82.0	76.8	88.2	82.4	83.8	84.6	81.1	73.9	89.7	89.5	88.4	87.0	78.7	85.4	82.2	78.0	82.0	82.0	74.1	89.6	79
Index of arm	42.4	—	45.7	43.9	43.4	43.6	44.1	41.8	45.3	41.6	44.8	43.6	45.3	44.4	42.9	45.3	44.4	43.9	45.6	45.1	43.1	44
Index of finger-reach	99.4	—	105.9	103.6	102.6	100.0	102.6	98.8	103.4	98.5	103.4	103.0	104.4	106.5	101.1	105.8	101.5	103.9	105.7	105.7	104.3	104
Index of height, sitting	54.2	—	54.8	56.8	55.5	55.4	56.7	52.4	53.6	54.1	53.3	53.0	54.2	52.4	54.1	53.3	54.1	55.2	54.7	54.6	55.3	56
Index of width of shoulders	21.9	—	22.4	21.1	22.1	21.0	21.7	20.2 (?)	20.3	21.9	21.5	22.0	22.0	22.2	22.3	24.3	24.1	23.3	23.4	23.4	23.3	24

¹ Son of Nos. 42 and 70. Brother of No. 49.² Son of No. 67. Brother of Nos. 9, 44, 55.³ Brother of No. 13.⁴ Son of No. 67. Brother of Nos. 4, 44, 55.⁵ Son⁶ Father of No. 10.⁷ Father of No. 18.

Occiput rather flat. Large exostosis on vertex.

2. Niska'

I. Males

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Willy Bailey	James Ward	Peter Stafford	Peter Watson	Charles Teit	William Sutton	James Kwagso'	Albert Allan	Jonah Wilson	John Edwards	John Teit	John Wesley	Walter Haldane	Frank Gurney	Stephen Allen	Alfred Watson	Abel	George Palmer	Charles Russ	Thomas Trounce	Luke Nelson K'aga	William Pollard	Moses Bell	Charles Woods	Matthew Haldane	Heber Watson	Chief Mountain	Philip Latimer
Niska'	Niska'	Niska'	F. Gytika'n M. Niska'	Niska'	Niska'	Niska'	F. Niska' M. Gytika'n	Niska'	F. Tsamshian M. Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	F. Tsamshian M. Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Gytika'n	Niska'	Tamshian
16	17	17	20	20	20	25	27	28	28	30	32	33	35	35	35	36	37	38	40	45	55	58	60	62	65	67	65-70
mm. 1,634	mm. 1,668	mm. 1,643	mm. 1,605	mm. 1,620	mm. 1,617	mm. 1,671	mm. 1,723	mm. 1,629	mm. 1,771	mm. 1,700	mm. 1,680	mm. 1,712	mm. 1,632	mm. 1,726	mm. 1,698	mm. 1,668	mm. 1,640	mm. 1,717	mm. 1,677	mm. 1,625	mm. 1,644	mm. 1,645	mm. 1,627	mm. 1,623	mm. 1,633 ¹⁰	mm. 1,573 ¹¹	mm. — ¹²
308	1,364	1,350	1,310	1,332	1,293	1,373	1,434	1,327	1,460	1,423	—	1,397	1,335	1,440	1,340	1,381	1,350	1,435	1,373	1,328	1,333	1,332	1,371	1,342	1,331	1,282	—
716	761	739	694	725	719	780	810	729	800	653	—	784	751	784	729	780	742	808	774	745	756	728	779	762	718	720	—
694	1,766	1,794	1,680	1,691	1,734	593	1,850	1,712	1,830	1,808	—	1,841	1,723	1,830	1,827	1,803	1,741	1,860	1,798	1,730	1,761	1,710	1,810	1,735	1,685	1,647	—
900	914	895	890	908	828	1,815	928	877	942	878	880	954	902	931	881	878	893	888	911	904	890	915	840	865	900	846	795
379	390	384	375	395	402	878	387	378	385	381	393	396	425	385	385	399	408	415	385	378	402	373	400	418	400	388	357
189	192	186	187	191	189	190	203	186	204	194	192.5	189	198	192	196.5	194	200	197	195	205	204	206	194	197	199	191	194
158	154.5	157	157	160	158	166	164	151	160	157	164	165	167	157	166	163	167	161	159.5	158	164	162	158	163	160	161	169
123	119	119	123	112	124	120	120	119	133	124	126	110	111	123	127	116	127	109	119	119	124	123	128	125	120	124	113
148	149	149	142	150	143	155	160	148	157.5	157	160	163	164	150	156.5	161	165.5	165	158	152.5	159	149	161	167	155	156	158
50	50	54	48	48	47	52	48	49	53	49	49	49	50	52	54	53	52	52	57	50	53	52	51	52	54	49	53
37	41	40	43	38	35	37	42	41	43	39	37	39	42	43	41	42	38	40	41	39	46	42	47	49	43	41	41
83.6	80.5	84.4	84.0	83.8	83.6	87.4	80.8	81.2	78.4	80.9	85.2	87.3	84.3	81.8	84.5	84.1	83.5	81.7	81.8	77.1	80.4	78.6	81.4	82.7	80.4	84.3	87.1
83.1	79.9	79.9	86.6	74.7	86.7	77.4	75.0	80.4	84.4	79.0	78.8	67.5	67.7	82.0	81.2	72.1	76.8	66.1	75.3	78.0	78.0	82.6	79.5	74.9	77.4	79.5	71.5
74.0	82.0	74.1	89.6	79.2	74.5	71.2	87.5	83.7	81.1	79.6	75.5	79.6	84.0	82.7	75.9	79.2	73.1	76.9	71.9	78.0	86.8	80.8	92.2	94.2	79.6	83.7	77.4
43.9	45.6	45.1	43.1	44.8	44.4	46.7	47.1	44.7	45.2	45.3	—	45.8	46.1	45.3	42.9	46.7	45.2	47.0	46.1	45.7	46.1	44.1	47.8	47.0	44.0	45.9	—
108.9	105.7	105.7	104.3	104.4	107.1	108.7	107.6	105.0	103.4	106.4	—	107.7	105.7	105.8	107.5	108.0	106.2	108.1	107.0	106.1	107.4	105.5	111.1	107.1	103.4	104.9	—
55.2	54.7	54.6	55.3	56.0	51.1	52.6	54.0	53.8	53.2	51.6	52.4	55.8	55.3	53.8	51.8	52.6	54.5	51.6	54.2	55.5	54.3	55.5	51.5	53.4	55.2	53.9	—
23.3	23.4	23.4	23.3	24.4	24.8	23.1	22.5	23.2	21.8	22.4	23.4	23.2	26.1	22.3	22.6	23.9	24.9	24.1	22.9	23.2	24.5	22.6	24.5	25.8	24.5	24.7	—

er of Nos. 4, 44, 55. ⁹ Son of No. 28. ⁸ Brother of No. 5. ⁷ Son of Nos. 40 and 74. Blind in consequence of an explosion of gunpowder. ⁶ Son of No 41. Right leg broken.
 Large exostosis on vertex. ¹¹ Father of No. 26. ¹² Father of Nos. 3 and 49. Much bent by age.

Ni

I

6

74

Bessie Seymour

Susan Watson

Nisk'a'

Nisk'a'

20

60

1m. m

559 1,5

310 1,3

702 6

680 1,6

853 8

374 3

197

56.5

117

149

43

38

79.4

78.5

38.4

15.0

37.7

54.7

24.0

r flax

17

17

Nisk'a'

2A. Nisk'a' Half-bloods.

		I. Males.				II. Females.		
	74	75	76	77	78	79	80	81
Bessie Seymour	Susan Watson	Dick Woods	William Elliot	Frank Days	Charles Elliot	Dorothea Alice Elliot	Sarah Ward	Emma Allen
Nisk'a'	Nisk'a'	F. American M. $\frac{1}{2}$ Nisk'a', $\frac{1}{2}$ White	F. $\frac{1}{2}$ Nisk'a', $\frac{1}{2}$ Dutch M. Nisk'a'	F. Spaniard M. Nisk'a'	F. Scotch M. Nisk'a'	F. $\frac{1}{2}$ Nisk'a', $\frac{1}{2}$ Dutch M. Nisk'a'	F. White M. Nisk'a'	F. Scotch M. Tsimshian
20	60	3	5	16	29	6	25	32
1m.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
559	1,572 ²⁹	888	— ³⁰	1,579	1,652	1,146 ³¹	1,632	1,603
310	1,304	—	—	1,301	1,352	888	1,360	1,312
702	689	—	—	726	754	465	732	723
680	1,608	898	—	1,630	1,712	1,118	1,686	1,653
853	827	504	—	834	872	635	822	874
374	331	201	—	326	374	243	326	328
197	181	168	176	179	188	175	176	181
56.5	155	141	140	151.5	150	145	160	155
117	117	90	—	111	130	95	117	110
149	141	112	117	140.5	144	119	139	146
43	44	34	39	49	55	37	52	49
38	39	36	28	38	35	32	31	33
79.4	85.6	83.9	79.6	84.7	79.8	82.9	90.9	85.6
78.5	83.0	80.4	—	78.9	90.3	79.8	84.2	75.4
38.4	88.6	76.5	71.8	77.6	63.6	86.5	59.6	68.8
15.0	48.9	—	—	45.9	45.7	40.4	44.9	45.2
37.7	102.4	101.1	—	103.2	103.8	97.2	103.4	103.3
54.7	52.7	56.8	—	52.8	52.8	55.3	50.4	54.6
24.0	21.1	22.6	—	20.6	22.7	21.1	20.0	20.5

¹⁷ S Hunchback.²² Daughter of No. 67. Sister of Nos. 4, 9, and 44.¹⁷ Daughter of No. 62. Sister of No. 76.

2. Niska' (continued).

II. Females.																					
Number	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	
Name	Maggie Solene Gurney	Elizabeth Nelson	Ellen Barton	Kok-a'kns	Josephine Ward	Emily Barton	Mary Latimer	Agnes Allen	Maud's Ward	Maud Woods	Fanny Truance	Jane Harvey	Julia Sutton	Bessie Seymour	Marianne Watson	Susan Allen	Nellie Seymour	Esther Gurney	Mary Edwards	Rose Elliot	
Tribes	Niska'	Niska'	Niska'	Niska' Upper part of river.	Niska'	Niska'	F. Tsimshian M. Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	F. Niska' M. Gytkean	Niska'	Niska'	Niska'	Niska'	
Age	2	5	6	7	8	9	11	12	12	16	16	17	18	20	20	20	22	25	26	26	
Height, standing	mm. 926 ¹³	mm. 1,000 ¹⁴	mm. 1,065 ¹⁵	mm. — ¹⁶	mm. 1,137 ¹⁷	mm. 1,225 ¹⁸	mm. 1,418 ¹⁹	mm. 1,387	mm. 1,465 ²⁰	mm. 1,560	mm. 1,250 ²¹	mm. 1,239 ²²	mm. 1,587 ²³	mm. 1,559	mm. 1,594	mm. 1,571	mm. 1,549	mm. 1,536	mm. 1,566	mm. 1,571	
Height of shoulder	—	775	818	—	922	965	1,152	1,105	1,178	1,285	—	1,132	1,292	1,310	1,304	1,283	1,271	1,268	1,281	1,222	
Length of arm	—	419	456	—	485	538	596	553	626	689	—	732	716	702	726	679	688	661	687	677	
Finger-reach	917	1,003	1,050	—	1,124	1,255	1,430	1,340	1,510	1,582	—	1,452	1,655	1,680	1,643	1,605	1,613	1,570	1,612	1,622	
Height, sitting	537	556	606	—	648	693	772	767	738	828	—	583	824	853	842	862	858	863	850	841	
Width of shoulders	—	235	241	274	241	263	300	294	313	319	—	295	352	374	349	318	343	353	348	352	
Length of head	168	170	177	173	167	170	176	178.5	176	183	184	181	193	197	184	193.5	185	179	181	185	
Breadth of head	144	137	148	142	144	145	151	145	146.5	151	149	145	153	156.5	157	150	158.5	156	154.5	155	
Height of face	85	89	94	92	97	97	101	98	109	112	—	105	111	117	118	115	113	114	110	107	
Breadth of face	123	118	120	123	123	125	134	130	129	138	130	133.5	143	149	144	142.5	144.5	147	144.5	148	
Height of nose	32	36	38	37	37	40	39	40	44	44	—	42	47	43	45	47	45	45	37	4	
Breadth of nose	28	29	29	30	33	31	31	34	36	34	—	37	35	38	33	38	35	33	38	3	
Length-breadth index	85.7	80.6	83.6	82.1	86.2	85.3	85.8	81.2	83.2	82.5	81.0	80.1	79.3	79.4	85.3	77.5	85.7	87.2	85.4	84.1	
Facial index	69.1	75.5	78.3	74.8	78.9	77.6	75.4	76.2	84.5	81.2	—	78.6	77.6	78.5	81.9	80.9	78.2	77.6	76.2	72.2	
Nasal index	87.5	80.5	76.3	81.1	89.2	77.5	73.5	85.0	81.8	77.3	—	88.1	71.5	88.4	73.3	80.9	77.8	73.3	102.7	77.7	
Index of arm	—	41.9	42.6	—	42.5	44.1	42.0	39.8	42.6	44.2	—	—	45.0	45.0	45.7	43.2	44.4	42.9	43.8	44.1	
Index of finger-reach	99.1	100.3	98.1	—	98.6	102.7	100.8	96.4	102.8	101.4	—	—	104.0	107.7	103.3	102.2	104.1	102.0	102.7	105.5	
Index of height, sitting	58.0	55.6	56.6	—	56.8	56.8	54.4	54.5	50.2	53.1	—	—	51.8	54.7	53.0	54.9	55.4	56.0	54.1	54.4	
Index of width of shoulders	—	23.5	22.5	—	21.1	21.6	21.1	21.1	21.3	20.4	—	—	22.1	24.0	22.0	20.3	22.1	22.9	22.2	23.3	

¹³ Daughter of No. 65.¹¹ Daughter of No. 67. Sister of Nos. 4, 9, 55.¹⁵ Mother of half-breeds Nos. 76 and 79.¹⁷ Daughter of No. 63. Sister of No. 48.¹⁹ Mother of Nos. 45 and 48.²⁰ Hunchback.²¹ Mother of No. 43.²² Sister of No. 51.²³ Mother of Nos. 4, 9, 44, and 55.²⁴ Daughter of No. 63. Sister of No. 48.²⁵ Mother of

2A. Nisk'a' Half-bloods.

																I. Males.				II. Females.		
59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81
Nellie Seymour	Esther Gurney	Mary Edwards	Rose Elliot	Emily Barton	Amy Watson	Eda Gurney	Selene Barton	Alice Nelson	Cecilia Ward	Emma Ward	Maria Latimer	Louisa Haldane	Maria Woods	Lá'is Nelson	Susan Watson	Dick Woods	William Elliot	Frank Days	Charles Elliot	Dorothea Alice Elliot	Sarah Ward	Emma Allen
Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	Nisk'a'	F. American M. $\frac{1}{2}$ Nisk'a' $\frac{1}{2}$ White	F. $\frac{1}{2}$ Nisk'a' $\frac{1}{2}$ Dutch M. Nisk'a'	F. Spaniard M. Nisk'a'	F. Scotch M. Nisk'a'	F. $\frac{1}{2}$ Nisk'a' $\frac{1}{2}$ Dutch M. Nisk'a'	F. White M. Nisk'a'	F. Scotch M. Taim-shian
22	25	26	26	28	30	30	32	35	35	40	45	54	55	60	60	3	5	16	29	6	25	32
mm. 1,519	mm. 1,536	mm. 1,566	mm. 1,536 ²¹	mm. 1,556 ²⁵	mm. 1,488	mm. 1,552 ²⁸	mm. 1,540	mm. 1,542 ²⁷	mm. 1,523	mm. 1,503	mm. 1,538 ²⁸	mm. 1,516	mm. 1,542	mm. 1,571	mm. 1,572 ²⁹	mm. 888	mm. — ³⁰	mm. 1,579	mm. 1,652	mm. 1,146 ³¹	mm. 1,632	mm. 1,603
1,271	1,268	1,281	1,225	1,277	1,225	1,276	1,276	1,230	1,259	1,210	1,245	1,245	1,280	1,283	1,304	—	—	1,301	1,352	888	1,360	1,312
688	661	687	678	713	642	708	665	679	673	662	683	685	657	701	689	—	—	726	754	465	732	723
1,613	1,570	1,612	1,628	1,656	1,498	1,653	1,580	1,575	1,567	1,535	1,567	1,618	1,570	1,620	1,608	898	—	1,630	1,712	1,118	1,686	1,653
858	863	850	843	858	836	850	878	815	844	828	840	805	—	822	827	504	—	834	872	635	822	874
343	353	348	358	334	354	370	342	323	352	349	335	354	—	360	331	201	—	326	374	243	326	328
185	179	181	185.5	188	183.5	188	186	186	183	182	186	191	192	186	181	168	176	179	188	175	176	181
158.5	156	154.5	157	154.5	156	156	147.5	161	158	149	144	155	163.5	151	155	141	140	151.5	150	145	160	155
113	114	110	108	119	109	117	111	105	121	106	114	117	125	117	117	90	—	111	130	95	117	110
144.5	147	144.5	148.5	142	143	149	142	143	146	142	137	149	152	147	141	112	117	140.5	144	119	139	146
45	45	37	48	48	40	46	45	42	49	42	43	45	59	53	44	34	39	49	55	37	52	48
85	33	38	37	35	35	39	41	39	38	39	33	87	35	38	39	26	28	38	35	32	31	33
85.7	87.2	85.4	84.7	82.2	85.0	83.0	79.3	81.2	86.3	81.9	77.4	81.2	85.2	81.2	85.6	83.9	79.6	84.7	79.8	82.9	90.9	85.6
78.2	77.6	76.2	72.8	83.8	76.2	78.5	78.2	73.4	82.9	74.7	83.2	78.5	82.2	79.6	83.0	80.4	—	78.9	90.3	79.8	84.2	75.4
77.8	73.3	102.7	77.1	72.9	87.5	84.8	91.1	92.9	77.6	92.9	76.7	82.2	59.4	71.7	88.6	76.5	71.8	77.6	63.6	86.5	59.6	68.8
44.4	42.9	43.8	44.0	45.7	43.1	45.7	43.2	45.0	44.3	44.1	44.4	45.1	42.7	44.6	43.9	—	—	45.9	45.7	40.4	41.9	45.2
104.1	102.0	102.7	105.7	106.2	100.5	106.6	102.6	104.3	103.1	102.3	101.8	106.4	101.9	103.2	102.4	101.1	—	103.2	103.8	97.2	103.4	103.3
55.4	56.0	54.1	54.7	55.0	56.1	54.8	57.0	54.0	55.5	55.2	54.5	53.0	—	52.4	52.7	56.8	—	52.8	52.8	55.3	50.4	54.6
22.1	22.9	22.2	23.2	21.4	23.8	23.9	22.2	21.4	23.2	23.3	21.8	23.3	—	22.9	21.1	22.6	—	20.6	22.7	21.1	20.0	20.5

¹⁹ Daughter of No. 63. Sister of No. 48.
44, and 55. ²⁰ Mother of Nos. 3 and 49.

¹⁹ Daughter of Nos. 42 and 70.

²⁰ Mother of No. 18. ²¹ Son of No. 62. Brother of No. 79. Consumptive.

²² Sister of No. 47.

²³ Idiote.

²⁴ Hunchback.

²⁵ Daughter of No. 62. Sister of No. 76.

²⁶ Daughter of No. 67. Sister of Nos. 4, 9, and 44.

II. Females								Female
7	18	19	20	21	22	23	24	1
M. Awl'ky'enōx	Tla'tlemégyla	Ts'ó'Qsaetsenka	Tsek'a'tla	Me'l'rétas	K'e'k'aqlala	K'a'Loégylak'	Ma'qmalak'udayukoa	A'lakylank'oa
Nak'oartók	Goasila	F. Kwakiutl M. Nak'oartók	Nak'oartók	Nak'oartók	Goasila	Nak'oartók	F. Heiltsuk. M. Awl'ky'enōq	
5	28	30	50	50	60	60	65	58
m. 08 ¹⁵	mm. 1,486	mm. 1,565 ¹⁶	mm. 1,597	mm. 1,522 ¹⁷	mm. 1,532	mm. 1,542 ¹⁸	mm. 1,530 ²⁰	mm. 1,522 ²¹
28	1,197	1,273	1,322	1,243	1,236	1,250	1,272	1,255
36	626	650	676	694	680	658	668	675
33	1,525	1,615	1,645	1,650	1,660	1,635	1,570	1,618
34	853	841	842	840	863	810	835	826
33	345	342	370	357	358	338	342	335
81 ⁵	192 ¹	194 ⁴	190 ⁴	186 ⁴	200 ³	181 ¹⁰	190 ⁴	182 ¹⁰
51 ⁵	160 ¹	163 ⁴	156 ⁴	155 ⁴	159 ³	171 ¹⁰	152 ⁴	162 ¹⁰
26	117	123	123	128	134	129	125	115
40	141.5	150	146	147.5	148	156	148	150
51	47	56	52	54	58	59	57	52
39	35	35	37	38	37	37	36	38
34 ⁵	83.3 ¹	84.0 ⁴	82.1 ⁴	83.3 ⁴	79.5 ³	94.4 ¹⁰	80.0 ⁴	89.1 ¹⁰
30	83.0	82.0	84.3	87.1	90.5	82.7	84.5	76.7
3.5	74.5	62.5	71.2	70.4	63.8	62.7	63.1	73.1
4.1	42.0	41.4	42.3	45.7	44.4	42.7	43.7	44.4
4.9	102.4	102.9	102.8	108.6	108.5	106.2	102.0	106.5
3.5	57.2	53.6	52.6	55.3	56.4	52.6	54.6	54.3
2.1	23.2	21.8	23.1	23.5	23.4	22.0	22.4	22.0

uch deformed. ¹⁷ Son of No. 12 brother of No. 2. ¹⁸ Son
 father of Nos. 1 and 2; son of Nos. 15 and 23; brother of No. 19.
¹⁹ Sister of No. 8. ²⁰ Grandmother of Nos. 1 and 2, mother

I. Males												
Number.	1	2	3	4	5	6	7	8	9	10	11	12
Name	K'a'nis	Male'te	K'o'e'isalas	Tie'lemidenuti	K'o'e'k'ulagvila	Ha'mteit	Ha'e'tielas	Nemo'guis	K'ala'pa	Po'patiak'alas	Kyili'tsa	Kyim'kit
Tribe	F. $\frac{1}{2}$ Goasila, $\frac{1}{2}$ Nak'oartók M. Goasila	F. $\frac{1}{2}$ Goasila, $\frac{1}{2}$ Nak'oartók M. Goasila	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	F. Goasila M. Nak'oartók	F. Nak'oartók M. Kwakiuti	Nak'oartók	F. Nak'oartók M. Goasila
Age	8	16	16	16	18	18	25	30	31	39	40	49
Height, standing . . .	mm. 1,120 ⁷	mm. 1,640 ⁸	mm. 1,624 ⁹	mm. 1,564	mm. 1,694 ¹⁰	mm. 1,682	mm. 1,725	mm. 1,730 ¹¹	mm. 1,700	mm. 1,645 ¹²	mm. 1,585	mm. 1,608 ¹³
Height of shoulder . .	874	1,337	1,319	1,273	1,373	1,382	1,421	1,442	1,408	1,337	1,306	1,313
Length of arm	491	704	725	702	760	754	778	799	767	744	680	726
Finger-reach	1,122	1,718	1,745	1,737	1,780	1,765	1,800	—	1,835	1,758	1,650	1,727
Height, sitting	612	922	880	823	911	910	940	950	893	880	881	870
Width of shoulders . .	251	374	378	396	383	375	378	405	406	384	375	381
Length of head	179 ¹	203 ⁴	191 ²	183 ⁴	195 ²	200 ³	201 ³	198 ³	194 ⁴	189 ³	208 ³	199 ³
Breadth of head	147 ¹	169 ⁴	157 ²	154 ⁴	162 ²	171 ³	161 ³	160 ³	151 ⁴	163 ³	168 ⁵	168 ⁵
Height of face	104	144	120	121	127	121	136	140	126	127	123	134
Breadth of face	124	156	146	146 ⁵	150	158	151	152	148	153	156	159
Height of nose	38	58	51	56	52	50	55	57	54	57	52	57
Breadth of nose	31	42	40	42	40	41	41	40	42	38	44	42
Length-breadth index . .	82.1 ¹	83.3 ⁴	82.2 ²	84.2 ⁴	83.1 ²	85.5 ³	80.1 ³	80.8 ³	77.8 ⁴	86.2 ³	81.0 ³	84.7 ³
Facial index	83.9	92.3	82.2	82.9	84.7	76.6	90.1	92.1	85.1	83.0	78.9	84.3
Nasal index	81.6	72.4	78.4	75.0	76.9	82.0	74.5	70.2	77.8	66.7	84.6	73.7
Index of arm	43.8	43.0	44.8	45.0	45.0	44.9	45.0	46.2	44.7	45.4	43.0	45.1
Index of finger-reach . .	100.0	104.8	107.7	111.3	105.2	105.1	104.1	—	108.0	107.2	104.4	107.2
Index of height, sitting. .	54.6	56.2	54.3	52.8	53.9	54.2	54.3	54.9	52.5	53.7	55.8	54.0
Index of width of shoulders .	22.4	22.8	23.3	25.4	22.7	22.3	21.8	23.4	23.9	23.4	23.7	23.7

¹ Not deformed. ² Slightly deformed. ³ Moderately deformed. ⁴ Considerably deformed.
 of No. 12, brother of No. 1. ⁵ Brother of No. 5. ¹⁰ Brother of No. 3. ¹¹ Brother of No. 21.
¹⁴ Grandfather of Nos. 1 and 2, father of No. 12. ¹⁵ Daughter of Heiltsuk (No. 1). ¹⁶ Daughter of Nos.
 of No. 12. ¹⁷ Occiput flattened. ¹⁸ Grandmother of No. 10. ¹⁹ Grandmother of No. 17.

							II. Females									Female
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1
M. Nak'oartók	Po'patlakalas	Kyili'tsa	Ky'umk-it	O'gwila	K'o'mhut	Si'wité	Kya'nitkynas	Ha'msit	Tla'tlemégyila	Ts'o'qtsaetsenk'a	Tsek'a'tla	Me'l'retas	K'e'k'aqlala	K'a'k'oeg'y'ak'	Ma'qmalak'udayukroa	A'lakylauk'oa
F. Nak'oartók M. Kwakiutl	Nak'oartók	F. Nak'oartók M. Goasila	Nak'oartók	Nak'oartók	Nak'oartók	Goasila	F. Nak'oartók M. Aw'ky'enox	F. Nak'oartók M. Aw'ky'enox	Nak'oartók	Goasila	F. Kwakiutl M. Nak'oartók	Nak'oartók	Nak'oartók	Goasila	Nak'oartók	F. Heiltsuk M. Aw'ky'enox
1	39	40	49	50	60	70	18	25	28	30	50	50	60	60	65	58
m. 00	mm. 1,645 ¹²	mm. 1,585	mm. 1,608 ¹³	mm. 1,672	mm. 1,566	mm. 1,670 ¹⁴	mm. 1,528	mm. 1,508 ¹⁵	mm. 1,486	mm. 1,565 ¹⁶	mm. 1,597	mm. 1,522 ¹⁷	mm. 1,532	mm. 1,542 ¹⁸	mm. 1,530 ²⁰	mm. 1,522 ²¹
08	1,337	1,306	1,313	1,363	1,285	1,368	1,251	1,228	1,197	1,273	1,322	1,243	1,236	1,250	1,272	1,255
67	744	680	726	722	720	765	628	666	626	650	676	694	680	658	668	675
35	1,758	1,650	1,727	1,783	1,690	1,728	1,593	1,533	1,525	1,615	1,645	1,650	1,660	1,635	1,570	1,618
93	880	881	870	952	835	913	870	884	853	841	842	840	863	810	835	826
06	384	375	381	381	366	404	323	333	345	342	370	357	358	338	342	335
94 ¹	189 ³	208 ³	199 ³	188 ³	189 ³	204 ⁴	174 ³	181 ³	192 ¹	194 ⁴	190 ⁴	186 ⁴	200 ³	181 ¹⁰	190 ⁴	182 ¹⁰
51 ⁴	163 ³	168 ⁵	168 ⁵	156 ³	156 ³	165 ⁴	152 ³	151 ⁵	160 ¹	163 ⁴	156 ⁴	155 ⁴	159 ³	171 ¹⁰	152 ⁴	162 ¹⁰
26	127	123	134	135	124	139	110	126	117	123	123	128	134	129	125	115
48	153	156	159	157	151	162	144	140	141 ⁵	150	146	147 ⁵	148	156	148	150
54	57	52	57	57	57	61	44	51	47	56	52	54	58	59	57	52
42	38	44	42	39	41	45	31	39	35	35	37	38	37	37	36	38
7 ⁸	86 ²	81 ⁰	84 ⁷	83 ⁰	82 ⁵	80 ⁹	87 ⁴	83 ⁴	83 ³	84 ⁰	82 ¹	83 ³	79 ⁵	94 ⁴	80 ⁰	89 ¹
5 ¹	83 ⁰	78 ⁹	84 ³	86 ⁰	82 ¹	85 ⁸	76 ⁴	90 ⁰	83 ⁰	82 ⁰	84 ³	87 ¹	90 ⁵	82 ⁷	84 ⁵	76 ⁷
7 ⁸	66 ⁷	84 ⁶	73 ⁷	68 ⁴	71 ⁹	73 ⁸	70 ⁵	76 ⁵	74 ⁵	62 ⁵	71 ²	70 ⁴	63 ⁸	62 ⁷	63 ¹	73 ¹
4 ⁷	45 ⁴	43 ⁰	45 ¹	43 ²	45 ⁹	45 ⁸	41 ¹	44 ¹	42 ⁰	41 ⁴	42 ³	45 ⁷	44 ⁴	42 ⁷	43 ⁷	44 ⁴
8 ⁰	107 ²	104 ⁴	107 ²	106 ⁸	107 ⁶	103 ⁵	104 ²	104 ⁹	102 ⁴	102 ⁹	102 ⁸	108 ⁶	108 ⁵	106 ²	102 ⁰	106 ⁵
2 ⁵	53 ⁷	55 ⁸	54 ⁰	57 ⁰	53 ²	54 ⁷	56 ⁹	58 ⁵	57 ²	53 ⁶	52 ⁶	55 ³	56 ⁴	52 ⁶	54 ⁶	54 ³
3 ⁹	23 ⁴	23 ⁷	23 ⁷	22 ⁸	23 ³	24 ²	21 ¹	22 ¹	23 ²	21 ⁸	23 ¹	23 ⁵	23 ⁴	22 ⁰	22 ⁴	22 ⁰

derably deformed.

³ Much deformed.⁶ Very much deformed.⁷ Son of No. 12, brother of No. 2.⁸ Son

Brother of No. 21.

¹² Grandson of No. 24.¹³ Father of Nos. 1 and 2; son of Nos. 15 and 23; brother of No. 19.¹⁴ Daughter of Nos. 15 and 23, sister of No. 12.¹⁷ Sister of No. 8.¹⁸ Grandmother of Nos. 1 and 2, mother

of No. 17.



	19	41	42	43	44	45	46	47	48	49
	Ya'k'athlala	G'u'ntalak	K'e'wilemka	Qa'nusemeka	E'ntsematoezlagyllis	NemsqemsE'las	Qua'nē	Ya'kamhsayukoa	Ti'atid	An'hanutsE'mka
	Gyō'p'énōq	Koskimo	Gyō'p'énōq	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo
	45	40	40	40	40	42	45	50	60	60
1.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
3	1,663	594	1,502	1,542	1,543 ²⁵	1,565	1,585 ²²	1,530	1,542	1,504 ²⁶
2	1,352	317	1,184	1,250	1,261	1,276	1,266	1,243	1,240	1,193
0	741	670	576	637	657	661	682	657	663	656
4	1,742	610	1,432	1,540	1,645	1,535	1,644	1,568	1,560	1,535
2	951	852	879	855	850	861	866	835	813	830
9	384	346	336	341	330	352	—	324	328	324
9 ³	206 ³ 206 ⁶		203 ³	186 ³	185 ³	195 ³	179 ⁶	196 ⁶	190 ²	199 ⁶
6 ³	150 ³ 140 ⁶		148 ³	139 ³	134 ³	146 ³	142 ⁶	139 ⁶	144 ²	140 ⁶
11	125	138	129	106	120	128	130	123	125	128
12	147	143	144	137	138	146	144	135	133	144
18	55	66	56	47	57	58	60	54	55	55
18	39	34	36	39	39	37	37	35	40	38
4 ³	72·8 58·0 ⁶		72·9 ³	74·7 ³	72·4 ³	74·9 ³	79·8 ⁶	70·9 ⁶	75·8 ²	70·4 ⁶
2	85·0 36·5		89·6	77·4	87·0	87·7	90·3	91·1	94·0	88·9
5	70·9 51·5		64·8	83·0	68·4	63·8	61·7	64·8	72·7	69·1
1	44·4 12·1		38·4	41·3	42·3	42·4	43·2	42·9	43·1	43·7
0	104·3 31·0		95·5	100·0	106·9	98·4	104·0	102·5	101·3	102·4
0	56·9 53·6		58·6	55·5	55·2	55·2	54·8	54·6	52·8	55·4
3	23·0 21·8		22·4	22·1	21·4	22·6	—	21·2	21·3	21·6

rmed. No. 44.

²⁵ Father of No. 11.²⁶ Father of No. 12.

Number.	I. Males																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Name	M'kula	We'até	Ta'atlagyllis	Má'qolagyllis	Hé'hasak amae	Negyé'	Á'qolas	Tié'bate	Ntlk's'pénestak	Hé'iaq'ók alatl	Ya'k'othidé	Ts'ó'gyilak	Tla'k'atallis	Há'masilak'	K'ayó'tilasak	K'omnelegyllis	Má'anquit	K'ó'ngyllis	Ya'k'atlnala	Ya'k'atlas	K'ó'ngyllis	Nemo'kutsálas	Negyl's
Tribe	Koskimo	F. Kwakul M. Tla'tlasik'oa M. Nak'ó'ngyllisala	Koskimo	F. Tla'tlasik'oa M. Nak'ó'ngyllisala	Gyó'pénóq	Koskimo	Tla'tlasik'oa	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo	F. Koskimo M. Gyó'pénóq	Tla'tlasik'oa	Nak'ó'ngyllisala	F. Koskimo M. Gyó'pénóq	Koskimo	F. Nak'ó'ngyllisala M. Tla'tlasik'oa	Gyó'pénóq	Koskimo	Koskimo	Koskimo	F. Koskimo M. Tla'tlasik'oa
Age	9	10	11	15	20	20	22	26	28	30	32	35	35	35	44	45	45	45	45	48	50	50	55
Height, standing	1,171	1,256	1,295	1,600	1,749 ²²	— ²²	1,613 ²²	1,701	1,640	1,595	1,701 ²¹	1,604 ²²	1,683	1,622 ²²	1,589 ²²	1,650	1,593 ²²	1,624	1,663	1,646	1,593 ²²	1,634	1,620
Height of shoulder	918	983	1,029	1,331	1,442	—	1,296	1,395	1,320	1,280	1,375	1,272	1,340	1,295	1,299	1,368	1,322	1,292	1,352	1,311	1,324	1,303	1,316
Length of arm	488	518	546	708	789	—	727	751	677	733	752	720	735	721	702	709	682	670	741	661	702	727	724
Finger-reach	1,166	1,235	1,290	1,668	1,827	—	1,720	1,780	1,683	1,722	1,798	1,690	1,740	1,722	1,703	1,626	1,580	1,644	1,742	1,625	1,755	1,708	1,745
Height, sitting	664	678	722	858	969	992	927	931	924	946	867	871	930	888	865	886	885	912	951	928	843	865	882
Width of shoulders	261	258	279	386	—	403	—	384	338	378	343	375	412	—	—	355	358	379	384	395	359	376	372
Length of head	183 ¹	173 ¹	171 ¹	191 ¹	186 ¹	189 ¹	192 ¹	190 ¹	208 ¹	192 ¹	199 ¹	197 ¹	202 ²	193 ¹	183 ¹	192 ²	189 ¹	190 ¹	206 ¹	197 ¹	196 ¹	216 ¹	198 ¹
Breadth of head	160 ¹	148 ¹	148 ¹	156 ¹	153 ¹	162 ¹	159 ¹	150 ¹	158 ¹	151 ¹	155 ¹	152 ¹	159 ¹	162 ¹	150 ¹	161 ¹	149 ¹	166 ¹	150 ¹	146 ¹	156 ¹	143 ¹	151 ¹
Height of face	103	100	101	122	133	128	126	130	130	130	125	129	136	133	128	126	127	131	125	119	121	135	127
Breadth of face	129	124	126	146	144	151	152	148	144	144	153	144	148	153	147	153	147	152	147	149	158 ¹	150	147
Height of nose	38	43	43	52	54	58	52	53	51	59	48	52	60	59	57	57	56	58	55	55	57	58	58
Breadth of nose	31	30	33	39	38	40	42	39	40	38	39	37	40	38	38	39	36	38	39	46	42	42	40
Length-breadth index	87.4 ¹	85.8 ¹	86.6 ¹	81.7 ¹	82.3 ¹	86.1 ¹	82.8 ¹	79.0 ¹	76.0 ¹	78.6 ¹	77.9 ¹	77.2 ¹	78.7 ¹	84.0 ¹	82.0 ¹	83.9 ¹	78.8 ¹	78.4 ¹	72.8 ¹	74.1 ¹	79.6 ¹	66.2 ¹	76.3 ¹
Facial index	79.9	80.7	80.1	83.6	92.4	84.8	79.3	87.8	90.3	90.3	81.7	89.6	91.9	86.9	87.1	82.4	86.4	86.2	85.0	79.9	76.6	90.0	86.4
Nasal index	81.6	69.8	81.4	75.0	70.4	68.9	80.9	73.6	78.4	64.4	81.3	71.2	66.7	64.4	66.7	68.4	64.3	65.5	70.9	83.6	73.7	72.4	69.0
Index of arm	41.7	41.1	42.4	44.2	45.1	—	45.2	44.2	41.3	46.1	44.2	45.0	43.8	44.5	44.2	43.0	42.9	41.1	44.4	40.1	44.2	44.6	44.7
Index of finger-reach	99.4	98.0	100.0	104.2	104.4	—	106.8	104.7	102.6	108.3	105.8	105.6	103.6	106.3	107.1	98.5	99.3	101.0	104.3	98.5	110.3	104.8	107.7
Index of height, sitting	66.8	53.8	56.0	53.6	55.4	—	57.6	54.8	56.3	59.5	51.0	54.4	55.4	54.8	54.4	53.7	55.7	56.0	56.9	56.2	53.0	53.1	54.4
Index of width of shoulders	22.3	20.5	21.6	24.1	—	—	—	22.6	20.6	23.8	20.2	23.4	24.5	—	—	21.5	22.5	23.3	23.0	23.9	22.6	23.1	23.0

¹ Not deformed.² Slightly deformed.³ Moderately deformed.⁴ Considerably deformed.⁵ Much deformed.⁶ Very much deformed.²² Measured by Dr. G. M. W.²¹ Daughter of Nos. 17 and 34.²⁰ Daughter of No. 49.¹⁹ Sister of No. 38.¹⁸ Mother.

								II. Females																					
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
<i>Yak'otlas</i>	<i>K'o' agyllis</i>	<i>Nemo'kutsalis</i>	<i>Nagy'a</i>	<i>No'lis</i>	<i>Ye'k'auite</i>	<i>Oya'tustawok</i>	<i>Koan'la</i>	<i>Wa'nuk</i>	<i>Yak'oonak'a</i>	<i>Tlat'edlayuk'oa</i>	<i>G'otlasla</i>	<i>Yape'alagyllis</i>	<i>Kak'a'ok'a-til</i>	<i>Ts'ak'otsaunk'a</i>	<i>Ku'omlayuk'oa</i>	<i>Tle'tenox</i>	<i>No'qanhyem</i>	<i>Ma'qubayokula</i>	<i>Kyle'tetlame</i>	<i>G'u'nkyas</i>	<i>G'u'ntelak</i>	<i>K'e'wilunk'a</i>	<i>Qa'nusunk'a</i>	<i>E'ntsemato'slagyllis</i>	<i>Nimsqem'e'las</i>	<i>Qu'at</i>	<i>Ya't'amnagayuk'oa</i>	<i>Tla'til</i>	<i>Aan'anute'unk'a</i>
<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>F. Koskimo M. Tlask'e'noq</i>	<i>Koskimo</i>	<i>Nak'o'ngyllisala</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Tlatlasik'oa</i>	<i>Koskimo</i>	<i>F. Tlatlasik'oa M. Nak'o'ngyllisala</i>	<i>Koskimo</i>	<i>Gyo'p'enox</i>	<i>Koskimo</i>	<i>Gyo'p'enox</i>	<i>Nak'o'ngyllisala</i>	<i>F. Nak'o'ngyllisala M. Tlatlasik'oa</i>	<i>Gyo'p'enox</i>	<i>Tlatlasik'oa</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Gyo'p'enox</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>	<i>Koskimo</i>
48	50	50	55	58	60	60	70	70	8	18	18	22	22	35	35	35	35	35	36	40	40	40	40	40	42	45	50	60	60
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,646	1,593 ²⁷	1,634	1,620	1,590 ²⁸	1,692	1,560 ²⁹	1,580	1,600	1,265 ²⁵	1,488 ³⁰	1,576	1,491 ³¹	1,564 ³²	1,512 ³³	1,630	1,600	1,546	1,520 ³⁴	1,560 ³⁵	1,554	1,594	1,562	1,542	1,543 ³⁶	1,565	1,585 ³⁷	1,530	1,542	1,504 ³⁸
1,311	1,324	1,303	1,316	1,293	1,392	1,291	1,298	1,280	1,010	1,171	1,273	1,193	1,247	1,186	1,328	1,302	1,272	1,222	1,262	1,249	1,317	1,184	1,250	1,261	1,276	1,266	1,243	1,240	1,193
661	702	727	724	700	752	746	705	722	—	578	658	622	659	627	684	689	644	659	685	647	670	576	637	657	661	682	657	663	656
1,625	1,755	1,708	1,745	1,690	1,777	1,728	1,660	1,676	1,265	1,470	1,615	1,522	1,598	1,523	1,676	1,649	1,523	1,587	1,600	1,576	1,610	1,432	1,540	1,645	1,535	1,644	1,568	1,560	1,535
928	843	865	882	819	926	810	845	883	694	830	863	865	846	851	843	866	852	846	853	820	852	879	855	850	861	866	835	813	830
395	359	376	372	347	403	363	358	380	—	334	335	363	356	346	371	—	339	322	—	333	346	336	341	330	352	—	324	328	324
197 ⁴	196 ⁴	216 ⁴	198 ⁴	198 ⁴	208 ⁴	201 ⁴	208 ⁴	200 ⁴	186 ⁴	183 ⁴	187 ⁴	188 ⁴	188 ⁴	199 ⁴	194 ⁴	197 ⁴	174 ⁴	188 ⁴	191 ⁴	192 ⁴	206 ⁴	203 ⁴	186 ⁴	185 ⁴	195 ⁴	179 ⁴	196 ⁴	190 ⁴	199 ⁴
146 ⁴	156 ⁴	143 ⁴	151 ⁴	144 ⁴	159 ⁴	154 ⁴	160 ⁴	153 ⁴	153 ⁴	160 ⁴	152 ⁴	150 ⁴	150 ⁴	145 ⁴	148 ⁴	151 ⁴	144 ⁴	146 ⁴	146 ⁴	141 ⁴	140 ⁴	148 ⁴	139 ⁴	134 ⁴	146 ⁴	142 ⁴	139 ⁴	144 ⁴	140 ⁴
119	121	135	127	129	132	121	136	143	112	113	118	124	130	119	129	116	121	130	117	114	138	129	106	120	128	130	123	125	128
149	158 ⁵	150	147	144	161	153	158	154	134	143	146	143	145	142	147	141	140	140	135	138	143	144	137	138	146	144	135	133	144
55	55	57	58	57	61	53	60	69	51	50	60	48	54	54	53	53	53	52	50	49	66	56	47	57	58	60	54	55	55
46	42	42	40	39	41	42	38	41	36	31	33	35	38	33	39	35	35	32	37	35	34	36	39	39	37	37	35	40	38
74 ¹	79 ⁶	66 ²	76 ³	72 ⁷	76 ⁴	76 ⁶	76 ⁹	76 ⁵	82 ³	85 ¹	81 ⁸	79 ⁸	79 ⁸	72 ⁹	76 ³	76 ⁶	82 ⁶	77 ⁷	76 ⁴	73 ⁴	68 ⁰	72 ⁹	74 ⁷	72 ⁴	74 ⁹	79 ⁸	70 ⁹	75 ⁸	70 ⁴
79 ⁹	76 ⁶	90 ⁰	86 ⁴	89 ⁶	82 ⁰	79 ¹	86 ¹	92 ⁹	83 ⁶	77 ⁴	80 ⁸	86 ⁷	89 ⁶	83 ⁸	87 ⁸	82 ³	86 ⁴	92 ⁹	86 ⁷	82 ⁶	96 ⁵	89 ⁶	77 ⁴	87 ⁰	87 ⁷	90 ³	91 ¹	94 ⁰	88 ⁹
83 ⁶	73 ⁷	72 ⁴	69 ⁰	68 ⁴	67 ²	79 ³	63 ³	59 ⁴	70 ⁶	62 ⁰	66 ⁰	72 ⁹	70 ⁴	61 ¹	73 ⁶	68 ⁰	66 ⁰	61 ⁵	74 ⁰	71 ⁴	51 ⁵	64 ³	83 ⁰	68 ⁴	63 ⁸	61 ⁷	64 ⁸	72 ⁷	69 ¹
40 ¹	44 ²	44 ⁶	44 ⁷	44 ⁰	44 ⁵	47 ⁸	44 ⁶	45 ¹	—	38 ⁸	41 ⁶	41 ⁷	42 ²	41 ⁵	42 ⁰	43 ¹	41 ⁴	43 ⁴	43 ⁹	41 ⁷	42 ¹	38 ⁴	41 ³	42 ³	42 ⁴	43 ²	42 ⁹	43 ¹	43 ⁷
98 ⁵	110 ³	104 ⁸	107 ⁷	106 ³	105 ²	110 ⁷	105 ⁰	104 ⁷	100 ⁰	98 ⁷	102 ²	102 ²	102 ⁵	100 ⁹	102 ⁸	103 ²	98 ³	104 ⁴	102 ⁵	101 ⁷	101 ⁰	95 ⁵	100 ⁰	106 ⁹	98 ⁴	104 ⁰	102 ⁶	101 ³	102 ⁴
56 ²	53 ⁰	53 ¹	54 ⁴	51 ⁵	54 ⁸	61 ⁹	53 ⁵	55 ²	55 ¹	55 ⁷	54 ⁶	58 ¹	54 ²	56 ⁴	51 ⁷	54 ¹	55 ⁰	55 ⁷	54 ⁷	52 ⁹	53 ⁶	58 ⁶	55 ⁵	55 ²	54 ⁸	54 ⁶	52 ⁸	55 ⁴	55 ⁴
23 ²	22 ⁶	23 ¹	21 ⁸	21 ⁸	23 ⁹	23 ⁸	22 ⁷	23 ⁸	—	22 ⁴	21 ²	24 ⁴	22 ⁸	22 ⁹	22 ⁸	—	21 ⁹	21 ²	—	21 ⁵	21 ⁸	22 ⁴	22 ¹	21 ⁴	22 ⁶	—	21 ²	21 ³	21 ⁶

²² Measured by Dr. G. M. West. ²³ One leg deformed. ²⁴ Son of No. 24. ²⁵ Son of No. 26. ²⁶ Father of No. 30. ²⁷ Brother of No. 44. ²⁸ Father of No. 11. ²⁹ Father of No. 12.
³⁰ Sister of No. 38. ³¹ Mother of No. 30. ³² Sister of No. 33. ³³ Sister of No. 21. ³⁴ Mother of No. 32.

13	31	I. Males		II. Female	I. Boy	II. Girls	
		1	2	3	1	2	3
K'oe'málas	Há'nusenak'a	Maqmusá'kamé	Gó'lsalis	Mó'p'énestaak'	Thomas	Lucy Louis	Magdalen Andrew
F. Walaskwakutl M. Kue'ga	Kue'ga	F. American M. Walaskwakutl	F. Iroquois M. Kwakiutl	F. White M. Koskimo	Sishiatl	Sishiatl	Sishiatl
50	70	20	26	23	11	5	11
mm	mm.	mm.	mm.	mm.	mm.	mm.	mm.
.64	1,477	1716	1,662	1,510	1,307	1,066	1,350
.33	1,219	1,410	1,390	1,201	1,035	820	1,102
.72	714	790	760	627	573	432	580
1.74	1,604	1,968	1,824	1,560	1,338	1,050	1,340
.81	764	895	874	858	704	576	728
.31	308	400	404	358	282	239	307
11 ³	185 ³	183 ¹	184 ¹	187 ¹	180	159	171
10 ³	145 ³	154 ¹	151 ¹	154 ¹	147	145	156
1 ¹	115	125	124	125	104	90	100
1 ¹	143	147	145	147	127	121	135
	53	53	50	52	41	35	38
	37	40	39	33	30	29	35
81 ³	78.4 ³	84.2 ¹	82.1 ¹	82.4 ¹	81.6	91.2	91.5
81 ³	80.4	85.0	85.5	85.0	81.9	74.4	74.1
.61	69.8	75.5	78.0	63.5	73.2	82.9	92.1
4 ¹	48.3	45.9	45.8	41.5	43.7	40.4	43.0
10 ¹	108.4	114.4	109.9	103.3	102.1	98.2	99.3
51 ²	51.6	52.0	52.7	56.8	53.7	53.8	53.9
21 ³	20.8	23.3	24.3	23.7	21.5	22.3	22.7

1. of No. 16. " Sister of No. 20. " Sister of No. 18

Number.	Women		I. Males															16	17
	1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Name.	He'ndemis	Ná'na	Wá'wótkyine	Lgyé'q	Wá'nuk	Há'qoskmaé	Aná'tkyinis	Ts'o'xdis	Qoay'm	Ma'qmusak-uné	Pa'nkut	Kué'qalagyinlak'	Malé'té	K'yá'té	K'ó'málas	Tibhinságyilis	E'wanuqé	He'tostock'a	Wá'da'na
Tribe.	Ts'ú'k-tis-atq	Ts'ú'k-tis-atq	F. K'omoyué M. Diau'isais	F. Kwakiutl M. Walaskwakutl	F. Kwakiutl M. Le'wikók	F. Kué'qa M. Walaskwakutl	F. K'óé'tsot'énoq M. Ne'mk'-ic	F. Tsá'wá'ténoq M. Kwakiutl	F. Gué'tela M. Ma'malek'ala	F. Walaskwakutl M. Ma'malek'ala	F. Walaskwakutl M. Ne'mk'-ic	F. Kwakiutl, ½ M. He'lsok	Kwakiutl	Walaskwakutl	F. Walaskwakutl M. Kué'qa	F. Walaskwakutl M. K'ó'moyue	K'ó'moyué	Ma'malek'ala	Ma'malek'ala
Age.	23	40	13	18	25	26	30	35	35	36	38	38	42	42	50	60	65	4	6
Height, standing	1,601 ³⁷	1,592 ³⁹	1,286 ³⁹	1,520	1,632 ²²	1,691	1,662 ²³	1,746	1,684	1,595	1,638	1,666	1,566 ²²	—	1,640	1,550	1,595 ²²	990 ⁴¹	1,077 ⁴²
Height of shoulder	1,317	1,313	1,060	1,236	1,340	1,383	1,394	1,430	1,284	1,303	1,328	1,362	1,281	—	1,333	1,265	1,323	768	867
Length of arm	659	705	573	642	741	759	—	787	702	731	735	750	694	—	733	692	744	406	449
Finger-reach	1,682	1,650	1,350	1,515	1,757	1,788	1,826	1,848	1,638	1,693	1,795	1,782	1,699	1,715	1,722	1,638	1,750	975	1,057
Height, sitting	840	896	694	800	911	968	899	952	880	891	892	885	846	916	876	850	838	570	565
Width of shoulders	383	355	275	321	—	392	—	375	337	377	364	392	—	363	392	353	—	218	226
Length of head	188 ¹	192 ¹	182 ¹	179 ¹	192 ¹	189 ²	205 ⁴	200 ³	187 ³	184 ³	190 ²	184 ¹	180 ³	193 ³	191 ³	—	186 ⁴	166 ¹	171 ¹
Breadth of head	151 ¹	146 ¹	150 ¹	158 ¹	160 ¹	163 ³	158 ⁴	170 ³	168 ³	159 ³	156 ²	160 ¹	161 ³	156 ³	163 ³	158	157 ⁴	139 ¹	140 ¹
Height of face	118	120	107	114	133	131	141	136	129	132	126	117	134	131	124	130	138	87	94
Breadth of face	146 ⁵	145	126	140	147	147	148	151	152	148	141	144	156	151	150	153	147	117	112
Height of nose	47	52	42	45	57	55	58	51	60	56	48	52	58	56	52	57	62	33	38
Breadth of nose	34	35	32	35	35	38	40	43	38	37	37	35	40	43	36	41	43	28	29
Length-breadth index	80.3 ¹	76.0 ¹	82.4 ¹	88.3 ¹	83.3 ¹	86.2 ²	77.1 ⁴	85.0 ³	89.8 ³	86.4 ³	82.1 ²	87.0 ¹	89.1 ²	80.8 ³	85.3 ³	—	84.0 ¹	88.7 ¹	81.9 ¹
Facial index	80.8	82.8	84.9	81.4	90.5	89.1	95.3	91.0	84.9	89.2	89.4	81.2	85.9	86.8	82.7	85.0	93.9	74.4	83.9
Nasal index	72.3	67.3	76.2	77.8	61.4	69.1	74.2	84.3	63.8	66.1	77.1	67.3	69.0	76.8	69.2	71.9	69.3	84.8	76.3
Index of arm	41.2	44.3	44.8	42.2	46.5	44.9	—	45.0	44.4	46.0	44.8	44.9	44.2	—	44.7	44.6	46.5	41.0	41.6
Index of finger-reach	105.1	103.7	105.5	99.7	107.8	105.8	110.0	105.6	103.6	106.5	109.4	106.7	108.2	—	105.0	105.7	109.4	98.5	97.6
Index of height, sitting	52.5	56.1	54.2	52.6	55.9	57.3	54.2	54.4	55.7	56.0	54.4	53.1	53.9	—	53.4	54.8	52.4	57.6	52.3
Index of width of shoulders	23.9	22.3	21.5	21.1	—	23.2	—	21.4	21.3	23.7	22.2	23.5	—	—	23.9	22.8	—	22.0	20.9

¹ Not deformed.² Slightly deformed.³ Moderately deformed.⁴ Considerably deformed.⁵ Much deformed.⁶ Very much deformed.²² Measured by Dr. G. M. West.³⁷ Data

II. Females																		I. Males		II. Female	I. Boy	II. Girls	
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		1	2	3	1	2	3
E'wanuqé	He'totoek'a	Wa'di'na	Tse'lad	—	Wa'tachalak	Ky'o'guisalak'	Tla'tasawetamka	To'to'-is	O'mag'yé'ka	Hayo'a'séshis	K-o'tialis	Há'nusenak'a	Yim'koas	Tla'dandalayak'oa	Tlaq'itlitesmka	Há'nusenak'a		Ma'musi k'amé	Go'ladis	Mo'p'nestaak'	Thomas	Lucy Louis	Magdalen Andrew
K'o'moyé	Ma'malek'ala	Ma'malek'ala	F. Ne'mk'ic M. Kwakiutl	Ma'malek'ala	F. Ne'mk'ic M. Kwakiutl	Ne'mk'ic	F. Ne'mk'ic M. Dlau'tis	F. Wa'laekwakutl M. Ne'mk'ic	Ne'mk'ic	F. 1/2 Ku'e'qa, 1/2 Tena'q'iaq M. Tena'q'iaq	F. Ma'malek'ala M. Kwakiutl	Ne'mk'ic	F. Ma'malek'ala M. Ku'e'qa	Walaskwakutl	Walaskwakutl	Ku'e'qa		F. American M. Walaskwakutl	F. Iroquois M. Kwakiutl	F. White M. Kuskimo	Sishiatl	Sishiatl	Sishiatl
65	4	6	8	11	13	18	18	22	28	30	36	38	40	45	60	70		20	26	23	11	6	11
mm. 1,595 ²²	mm. 990 ⁴¹	mm. 1,077 ⁴²	mm. 1,261 ⁴³	mm. 1,353	mm. 1,460 ⁴⁴	mm. 1,186	mm. 1,513 ²²	mm. 1,562 ²²	mm. 1,493	mm. 1,505	mm. 1,562	mm. 1,634	mm. 1,503	mm. 1,463	mm. 1,483	mm. 1,477		mm. 1,716	mm. 1,662	mm. 1,510	mm. 1,307	mm. 1,066	mm. 1,350
1,323	768	867	995	1,100	1,183	1,234	1,358	1,292	1,234	1,220	1,260	1,353	1,223	1,195	1,236	1,219		1,410	1,390	1,201	1,035	820	1,102
744	406	449	524	—	658	686	—	694	667	640	657	683	649	655	696	714		790	760	627	573	432	560
1,750	975	1,057	1,262	1,398	1,513	1,563	1,594	1,674	1,580	1,592	1,585	1,658	1,540	1,563	1,608	1,604		1,968	1,821	1,560	1,338	1,050	1,310
838	570	565	686	726	750	823	831	837	838	833	852	923	785	803	862	764		895	874	858	704	576	728
—	218	226	257	309	315	325	—	—	335	362	351	342	327	345	348	308		400	404	358	282	239	307
186 ⁴	166 ¹	171 ¹	172 ¹	177 ²	184 ¹	177 ¹	187 ³	190 ²	180 ³	187 ²	185 ¹	188 ³	181 ²	179 ³	182 ³	185 ³		183 ¹	184 ¹	187 ¹	180	159	171
157 ⁴	139 ¹	140 ¹	143 ¹	147 ²	150 ¹	154 ¹	159 ³	162 ²	155 ³	154 ²	153 ¹	165 ³	148 ²	152 ³	153 ³	146 ³		164 ¹	151 ¹	154 ¹	147	145	156
138	87	94	101	114	103	111	127	128	114	116	115	123	120	119	119	115		125	124	125	104	90	100
147	117	112	123	135	132	140	148	139	135	146	144	151	139	145	149	143		147	145	147	127	121	135
62	33	38	40	43	40	43	60	57	44	47	45	46	45	52	49	53		53	50	52	41	35	38
43	28	29	30	33	33	32	33	35	31	35	35	38	30	36	42	37		40	39	33	30	29	35
84-0 ¹	83-7 ¹	81-9 ¹	83-1 ¹	83-1 ²	81-5 ¹	87-0 ¹	75-0 ³	80-0 ²	86-1 ³	82-3 ²	82-7 ¹	87-8 ³	81-8 ²	84-9 ³	84-1 ³	78-4 ³		84-2 ¹	82-1 ¹	82-4 ¹	81-6	91-2	91-5
93-9	74-4	83-9	82-1	84-5	78-1	79-3	85-8	92-1	84-5	79-5	79-9	81-5	86-3	82-1	79-9	80-4		85-0	85-5	85-0	81-9	74-4	74-1
69-3	84-8	76-3	75-0	76-7	82-5	74-4	55-0	61-4	70-5	74-5	77-8	82-6	66-7	69-2	85-7	69-8		75-5	78-0	63-5	73-2	82-9	92-1
46-5	41-0	41-6	41-6	—	45-1	46-0	—	44-5	44-8	42-4	42-4	41-9	13-3	44-9	47-0	48-3		45-9	45-8	41-5	43-7	40-4	43-0
109-4	98-5	97-6	100-0	103-6	103-7	104-9	104-9	107-4	106-1	105-5	102-3	101-7	102-7	107-1	108-7	108-4		114-4	109-9	103-3	102-1	98-2	99-3
52-4	57-6	52-3	54-5	53-8	51-4	53-2	54-7	53-7	56-2	55-2	55-0	56-6	52-3	55-0	58-2	51-6		52-0	52-7	56-8	53-7	53-8	53-9
—	22-0	20-9	20-4	22-9	21-6	21-8	—	—	22-5	24-0	22-6	21-1	21-8	23-6	23-5	20-8		23-3	24-3	23-7	21-5	22-3	22-7

measured by Dr. G. M. West.

⁴¹ Daughter of No. 2.

⁴² Mother of No. 1.

⁴³ Son of No. 15.

⁴⁴ Father of No. 1.

⁴⁵ Sister of No. 17.

⁴⁶ Sister of No. 16.

⁴⁷ Sister of No. 20.

⁴⁸ Sister of No. 18.

20

Célestine Victor

Lek 3'/meI

12

mm.

1,402

1,131

584

1,403

766

324

171

149

103

137

42

35

87.1

75.2

83.3

41.7

100.0

54.7

23.1

No. 28.

10. Tribes of Harrison River.

I. Boys						II. Girls				Boy
20	3	4	5	6	7	8	9	10	11	12
Célestine Victor	Harry Skoatats	Alexander	Jackson	William	William Philip	Minnie	Mary James	Emily James	Cécile Lewis	Thomas Purcell
Lek'a'mel	Sk'au'elitsk	Sk'au'elitsk	Stsée'lis	Sk'au'elitsk	Stsée'lis	Stsée'lis	Sk'au'elitsk	Sk'au'elitsk	Sk'au'elitsk	F. $\frac{1}{2}$ Stsée'lis, $\frac{1}{2}$ White M. $\frac{1}{2}$ Stsée'lis
12	11	12	13	13	14	8	11	14	16	9
mm. 1,402	mm. 1,259	mm. 1,273	mm. 1,427	mm. 1,450	mm. 1,512	mm. 1,200	mm. 1,366	mm. 1,497	mm. 1,468	mm. 1,198
1,131	985	1,030	1,156	1,170	1,211	958	1,094	1,213	1,198	984
584	560	547	590	651	658	517	609	654	646	534
1,403	1,302	1,290	1,433	1,513	1,580	1,197	1,424	1,523	1,520	1,217
766	677	677	778	768	787	653	720	796	785	646
324	288	291	287	325	357	253	304	318	328	263
171	183	175	177	190	181	166	167	182	162	171
149	152	148	156	158	157	143	146	165	153	153
103	103	102	100	112	111	94	105	111	102	95
137	132	126	132	136	141	122	126	141	137	124
42	43	39	38	49	44	39	46	48	39	38
35	36	34	35	33	39	30	34	35	34	33
87.1	83.1	84.6	83.1	83.2	86.7	86.1	87.4	90.7	94.4	89.5
75.2	78.1	81.0	75.8	82.4	78.7	77.0	83.3	78.7	74.5	76.6
83.3	83.7	87.2	92.1	67.3	88.6	76.9	73.9	72.9	87.2	86.6
41.7	44.4	43.1	41.3	44.9	43.6	43.1	44.5	43.6	43.9	44.5
100.0	103.3	101.7	100.2	104.3	104.6	99.8	103.9	101.5	103.4	101.4
54.7	53.7	53.3	54.4	53.0	52.1	54.4	52.6	53.1	53.4	53.9
23.1	22.9	22.9	20.1	22.4	23.6	21.1	22.2	21.2	22.3	23.6

9. Tribes of the Delta of Fraser River.

I. Boys												II. Girls															
Number.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
Name	Harry	Daniel	Dave	Jimmy	Willy	Patrick Tommy	Casimir	Davis Stewart	Jimmy Amory	Patrick Johnny	Simon	Annie Cheam	Marianne Paul	Maggie Andrew	Océle Joseph	Susanne George	Mathilda William	Louise Joseph	Christine Andrew	Celestino Victor	Christine Tom	Christine Joseph	Emily Joseph	Emma Dick	Josephine Michel	Alice William	Isabella Billy
Tribes	Pella'liq	Pella'liq	Te'Heque'uk	Kok'au'lic	F. Skau'elisk M. Ma'equi	Te'Heque'uk	qme'koyim	Ewa'wus	F. Tsakut'm M. Skau'elisk	Ruby Creek	F. K. e'tese M. Ma'equi	Pella'liq	Pella'liq	F. Ewa'wus M. Skau'elisk	Te'Heque'uk	Te'Heque'uk	F. Kul'kotam M. K'e'tese	Te'Heque'uk	F. Seatte M. Tululip	Lek'au'mel	Ruby Creek	F. Nlakypamooq M. Pella'liq	Te'Heque'uk	F. Pella'liq M. Te'Heque'uk	F. qme'koyim M. K'e'tese	F. Lek'au'mel M. Nlakypamooq	F. Lilloet M. K'e'tese
Age	7	9	9	9	10	10	11	11	13	13	13	7	8	9	10	11	11	11	12	12	12	12	12	13	14	15	15
Height, standing	mm. 1,156	mm. 1,180	mm. 1,236	mm. 1,204	mm. 1,304	mm. 1,240	mm. 1,370	mm. 1,322	mm. 1,418	mm. 1,426	mm. 1,418	mm. 1,125	mm. 1,211	mm. 1,246	mm. 1,393	mm. 1,373	mm. 1,447	mm. 1,405	mm. 1,414	mm. 1,402	mm. 1,359	mm. 1,450	mm. 1,501	mm. 1,465	mm. 1,408	mm. 1,482	mm. 1,494
Height of shoulder	889	942	980	944	1,053	976	1,123	1,075	1,173	1,154	1,152	881	990	1,005	1,122	1,107	1,152	1,138	1,147	1,131	1,103	1,162	1,227	1,193	1,136	1,176	1,197
Length of arm	483	505	508	510	551	561	618	610	631	622	631	469	548	561	630	587	628	598	617	584	596	641	675	636	628	623	668
Finger-reach	1,153	1,190	1,235	1,227	1,323	1,296	1,427	1,426	1,470	1,170	1,468	1,150	1,252	1,292	1,446	1,368	1,173	1,390	1,487	1,403	1,385	1,518	1,510	1,542	1,419	1,488	1,587
Height, sitting	635	646	674	662	707	653	721	696	717	756	771	587	680	653	733	740	776	778	750	766	732	770	816	781	740	800	813
Width of shoulders	252	276	282	274	289	285	318	283	309	308	324	245	289	282	312	288	312	292	310	324	300	332	323	335	320	344	347
Length of head	170.5	177	169	172	169	174	181	167	177	176	187	175	170	176	170	176	183	174	179	171	178	182	174	171	168	180	180
Breadth of head	155	143	152	157	156	160	157	155	153	148	150	148	154	148	148	156	151	157	144	149	152	154	151	152	145	151	154
Height of face	94	95	100	99	102	105	96	96	112	105	101	92	102	101	105	105	111	114	109	103	110	101	112	104	101	113	103
Breadth of face	127	123	131	134	133	138	136	135	131	127	134	120	131	129	129	135	133	134	126	137	132	135	130	137	131	134	137
Height of nose	35	37	38	39	40	41	36	37	40	42	42	36	42	37	41	44	41	48	43	42	47	41	48	42	41	43	46
Breadth of nose	33	33	34	32	36	32	34	33	35	33	33	28	31	34	30	32	34	33	33	35	34	35	36	32	34	36	36
Length-breadth index	91.2	80.8	90.0	91.3	92.3	92.0	84.5	93.1	87.6	84.1	80.2	84.6	90.5	84.1	87.1	88.6	82.5	90.2	80.4	87.1	85.4	84.6	86.8	88.9	86.3	83.9	83.9
Facial index	74.0	7.2	76.3	73.9	76.7	76.1	70.6	71.1	85.5	82.7	75.4	76.7	77.9	78.3	81.4	77.8	83.5	85.1	86.5	75.2	83.4	74.8	86.2	75.9	77.4	84.3	75.2
Nasal index	94.3	8.2	89.5	82.0	90.0	78.0	94.4	89.2	87.5	78.6	78.6	77.8	73.8	91.9	73.2	72.7	82.9	68.8	76.7	83.3	72.4	85.4	75.0	76.2	82.9	83.7	76.1
Index of arm	41.6	42.8	41.0	42.7	42.4	45.2	45.1	46.2	44.4	43.5	44.1	41.2	44.2	44.9	45.3	42.8	43.3	42.7	43.8	41.7	43.8	41.2	45.0	43.3	44.5	42.1	44.8
Index of finger-reach	100.0	100.1	100.0	102.2	101.8	104.5	104.2	108.0	103.5	102.8	103.4	102.7	101.0	103.4	104.0	99.8	101.6	99.3	105.5	100.0	101.8	101.7	102.7	104.9	102.8	100.1	106.6
Index of height, sitting	54.7	54.7	54.4	55.2	54.4	52.7	52.8	52.7	52.6	52.9	54.3	52.4	54.8	52.2	52.8	54.0	53.5	55.6	53.2	54.7	53.8	53.1	54.4	53.1	52.5	54.1	54.4
Index of width of shoulders	21.7	23.4	22.7	22.9	22.2	23.0	23.2	21.4	21.8	21.5	22.8	21.9	23.3	22.6	22.4	21.0	21.5	20.9	22.0	23.1	22.1	22.9	21.6	22.8	22.7	23.2	23.4

* Brother of No. 28.

* Sister of No. 23.

* Sister of No. 23.

9A. Half-bloods, Delta of Fraser River.

10. Tribes of Harrison River.

I. Boy										II. Girls										I. Boys							II. Girls				Boy
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	1	2	3	4	5	6	7	8	9	10	11	12	
Emily Joseph	Emma Dick	Josephine Michel	Alice William	Isabella Billy	Lizzie Charles	Sarah	Mary Pierre	Magdalene Charlie	Edmond	Emilia Andrews	Ida	Claude Andrews	Annie	Josephine Pierre	Maggie Joseph	Marianne Bailey	Lizzie Louis Edward	Magdalene Andrews	Alexander	Andrew	Harry Skolats	Alexander	Jackson	William	William Philip	Minnie	Mary James	Emily James	Ocellie Lewis	Thomas Purrell	
Tellique'uk	F. Pella'tiq M. Tellique'uk	F. qme'koyim M. K'etse	F. Lak'amel M. Nthakya pamoq	F. Lilloet M. K'etse	F. Kod'antel M. Ewa'wus	F. Tellique'uk M. Tutalip	F. Ewa'wus M. Tutalip	F. Ruby Creek M. Tokkum	F. Ma'quai M. Ma'quai, 1/2 White	F. Spanish M. Sk'at'at	F. Tellique'uk M. Kanaka	F. Spanish M. Sk'at'at	F. Tellique'uk M. Kanaka	F. Tellique'uk M. Kanaka	F. Indian M. Ma'quai koyim, 1/2 Kanaka	F. 1/2 White, 1/2 qme'koyim M. Sk'at'at	F. Ma'quai, 1/2 White M. Pella'tiq	F. Spanish M. Sk'at'at	Steele's	Steele's	Skau'elisk	Skau'elisk	Steele's	Skau'elisk	Steele's	Steele's	Skau'elisk	Skau'elisk	Skau'elisk	F. 1/2 Steele's, 1/2 White M. Ma'quai	
12	13	14	15	15	16	17	17	18	9	6	8	9	9	10	11	11	12	12	9	10	11	12	13	13	14	8	11	14	16	9	
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,501	1,465	1,408	1,482	1,494	1,500	1,471	1,536	1,523	1,280	1,061	1,193	1,295	1,250	1,410	1,356	1,398	1,452	1,114	1,259	1,302	1,273	1,273	1,427	1,450	1,512	1,200	1,366	1,497	1,468	1,138	
1,227	1,193	1,136	1,176	1,197	1,220	1,190	1,227	1,245	1,019	835	925	1,040	974	1,122	1,103	1,120	1,183	1,140	1,004	1,022	985	1,030	1,156	1,170	1,211	958	1,094	1,213	1,198	984	
675	636	628	623	668	644	648	641	643	569	436	473	540	539	609	587	559	627	623	538	572	560	547	590	651	658	517	609	654	646	534	
1,540	1,542	1,449	1,488	1,587	1,540	1,550	1,552	1,540	1,304	1,053	1,215	1,293	1,308	1,430	1,360	1,516	1,421	1,293	1,350	1,302	1,250	1,433	1,513	1,580	1,197	1,124	1,523	1,520	1,217		
816	781	740	800	813	800	812	862	824	693	587	664	693	683	776	712	781	765	727	694	696	677	677	778	768	787	653	726	796	785	646	
323	335	320	344	347	335	364	350	318	285	237	282	279	286	307	301	311	340	287	275	282	288	291	287	325	357	253	304	318	328	263	
174	171	168	180	180	178	181	181	171	170	173	172	170	176	175	173	182	177	171	168	169	183	175	177	190	181	166	167	182	162	171	
151	152	145	151	151	158	156	156	147	149	140	150	150	156	157	147	143	150	139	156	150	152	148	156	158	157	143	146	165	153	153	
112	104	101	113	103	112	115	110	105	96	97	94	102	102	110	103	109	102	98	101	97	103	102	103	112	111	94	105	111	102	95	
130	137	131	134	137	136	141	144	134	133	118	129	129	134	135	128	126	132	123	126	130	132	126	132	136	141	122	126	141	137	124	
48	42	41	43	46	49	48	42	41	40	37	37	43	43	47	46	43	35	41	43	40	43	39	38	49	44	39	46	48	39	38	
36	32	34	36	35	33	35	34	36	32	28	32	31	32	34	29	32	32	26	30	32	36	34	35	33	39	30	34	35	34	34	
86.8	88.9	86.3	83.9	83.9	89.1	86.2	86.2	86.0	87.7	80.9	87.2	88.2	88.6	89.7	85.0	78.6	84.7	81.3	92.9	88.8	83.1	84.6	88.1	83.2	86.7	86.1	87.4	90.7	94.4	89.5	
86.2	75.9	77.1	84.8	75.2	82.4	81.6	76.4	78.3	72.2	82.2	72.9	79.1	76.1	81.5	80.5	86.5	77.2	79.7	80.2	74.6	78.1	81.0	75.8	82.4	78.7	77.0	83.3	78.7	74.5	76.6	
75.0	76.2	82.9	83.7	76.1	67.3	72.9	80.9	80.7	75.7	86.5	72.1	84.4	72.4	63.0	84.4	91.4	63.4	69.8	80.0	83.7	87.2	92.1	67.3	88.6	76.9	73.9	72.9	87.2	86.6	86.6	
45.0	43.3	44.5	42.1	44.8	42.9	44.1	41.6	42.3	44.5	14.1	39.7	41.9	43.1	43.2	43.2	40.0	43.2	44.2	42.7	44.0	41.4	43.1	41.3	44.9	43.6	43.1	44.5	43.6	43.9	44.5	
102.7	104.9	102.8	100.1	106.5	102.7	105.4	100.8	101.3	101.9	99.4	102.1	100.0	104.6	101.4	105.2	97.1	104.6	100.8	102.6	103.8	103.3	101.7	100.2	104.3	104.6	99.8	103.9	101.5	103.4	101.1	
51.4	53.1	52.5	54.1	54.6	53.3	55.3	56.0	54.2	54.1	55.4	55.8	53.7	54.6	55.1	52.4	55.8	52.8	51.6	55.1	53.5	53.7	53.3	54.4	53.0	52.1	54.4	52.6	53.1	53.4	53.9	
21.5	22.8	22.7	23.2	23.3	22.3	24.8	22.7	20.9	22.3	22.4	23.7	21.6	22.9	21.8	22.1	22.2	23.5	26.4	21.8	21.7	22.0	22.9	20.1	22.4	23.6	21.1	22.2	21.2	22.3	23.6	

Sister of No. 23.

Sister of No. 15.

Sister of No. 8.

Utank-t of North Bend
and Boston Bar

2

mm.

803 "

593

327

722

480

—

166

148

82

115

32

27

89.2

71.3

84.4

40.7

96.1

59.8

—

other o
brothe

20	21	43	44	45	46	47	48	49	50
Anias	Harry	Cy'qala	Ha'tisdem	Clipi'tza	Pak'oyaten	Tqoaliq'e'n	La'ict	Nqa'temek'an	Kul'a'ta
Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar
2	3	55	58	60	60	65	65	70-75	75
mm. 803 ^a	mm. 897 ¹³	mm. 1,492	mm. 1,555	mm. 1,622	mm. 1,566	mm. 1,538	mm. 1,620	mm. 1,572	mm. —
593	14	1,218	1,258	1,350	1,292	1,280	1,308	1,313	—
327	34	663	682	713	760	672	741	716	—
722	24	1,510	1,610	1,745	1,707	1,552	—	1,672	1,558
480	51 ¹⁵	790	830	816	808	797	843	815	793
—	21 ¹¹	327	365	364	334	354	348	361	348
166	17 ⁸⁹	177	195	188	191	182	185	176	188
148	14 ⁵⁸	151	155	162	160	151	154	156	160
82	8 ¹⁷	110	130	118	124	121	130	130	117
115	12 ⁴³	139	149	153	150	148	143	146	153
32	3 ⁵³	53	55	47	55	51	56	62	57
27	2 ⁴⁰	41	40	41	43	38	40	38	43
89.2	83.6	85.3	79.5	86.2	83.8	83.0	83.2	88.6	85.1
71.3	70.8	79.1	87.3	77.1	82.7	81.8	90.9	79.0	76.5
84.4	90.5	77.4	72.7	87.2	78.2	74.5	71.4	61.3	75.4
40.7	4.9	44.5	44.0	44.0	48.4	43.7	45.7	45.6	—
96.1	3.0	103.0	103.9	107.7	108.7	100.8	—	106.5	—
59.8	51.7	53.0	53.5	50.4	51.5	51.8	52.0	51.9	—
—	23.0	22.0	23.5	22.5	21.3	23.0	21.5	23.0	—

other of No. 28. Brother of No. 28.

¹⁰ Brother of No. 24.

a. *Utankt of Spuzzum*.b. *Utankt of Spuzzum*
and *Upper Divisions mixed*.

Number.	I. Males										II. Females					Males									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Name	Willy Benjamin	Joe Mints	Louis Quina	Jim He'neha	Clement Kapose'ist	Dick Nqosa'elisk	Capt. Jack Sajo'lar- reluk	James Tape'ist	Silas Nponia'skt	Hakatel'anten	Yipa'tigo	Annie	Yi'ngo	La'isa	Naz'nak	Omra'u	Nk'elak'skt	Nkupa'skt	Michel	Anias	Harry	David	Billy Dick Silts'qen	?	Nicolas
Tribe	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	Utankt of Spuzzum	F. Spuzzum M. Nitakya'pamua'o'o'e	F. Spuzzum M. Nitakya'pamua'o'o'e	F. Spuzzum M. Nitakya'pamua'o'o'e	F. Nitakya'pamua'o'o'e M. Spuzzum	Utankt of North Bend and Boston Bar	Utankt of North Bend and Boston Bar	Utankt of North Bend and Boston Bar	Utankt of North Bend and Boston Bar	Utankt of North Bend and Boston Bar	Utankt of North Bend
Age	15	23	40	45	45	53	55	55	58	58	35	37	58	58	60	25	32	38	46	2	3	5	6	9	9
Height, standing	mm. 1,582	mm. 1,692	mm. 1,619	mm. 1,630	mm. 1,601	mm. 1,611	mm. 1,493	mm. 1,653	mm. 1,570	mm. 1,524	mm. 1,537	mm. 1,566	mm. 1,510	mm. 1,507	mm. 1,435	mm. 1,634	mm. 1,492	mm. 1,600	mm. 1,664	mm. 803	mm. 892	mm. 1,023	mm. 1,224	mm. 1,258	mm. 1,280
Height of shoulder	mm. 1,292	mm. 1,375	mm. 1,314	mm. 1,300	mm. 1,320	mm. 1,310	mm. 1,245	mm. 1,360	mm. 1,271	mm. 1,243	mm. 1,266	mm. 1,284	mm. 1,250	mm. —	mm. 1,187	mm. 1,310	mm. 1,205	mm. 1,310	mm. —	mm. 593	mm. —	mm. 783	mm. 971	mm. 1,023	mm. 1,138
Length of arm	mm. 709	mm. 712	mm. 705	mm. 740	mm. 728	mm. 727	mm. 685	mm. 760	mm. 702	mm. 678	mm. 701	mm. 692	mm. 678	mm. —	mm. 624	mm. 691	mm. 641	mm. 713	mm. —	mm. 327	mm. —	mm. 441	mm. 516	mm. 523	mm. 636
Elbow-reach	mm. 1,631	mm. 1,755	mm. 1,685	mm. 1,725	mm. 1,720	mm. 1,707	mm. 1,620	mm. 1,775	mm. 1,657	mm. 1,590	mm. 1,645	mm. 1,624	mm. 1,538	mm. 1,422	mm. 1,522	mm. 1,667	mm. 1,575	mm. 1,690	mm. 1,700	mm. 722	mm. —	mm. 1,033	mm. 1,198	mm. 1,220	mm. 1,285
Height, sitting	mm. 818	mm. 868	mm. 884	mm. 887	mm. 877	mm. 1,242	mm. 784	mm. 851	mm. 829	mm. 788	mm. 760	mm. 834	mm. 777	mm. 783	mm. 746	mm. 858	mm. 831	mm. 823	mm. 858	mm. 480	mm. 512	mm. 593	mm. 644	mm. 693	mm. 698
Width of shoulders	mm. 350	mm. 400	mm. 388	mm. 375	mm. 388	mm. 382	mm. 348	mm. 358	mm. 358	mm. 374	mm. 352	mm. 356	mm. —	mm. —	mm. 332	mm. 363	mm. 350	mm. 356	mm. 340	mm. —	mm. 210	mm. 225	mm. 246	mm. 251	mm. 271
Length of head	mm. 178	mm. 198	mm. 185	mm. —	mm. 183	mm. 194	mm. 181	mm. 191	mm. 192	mm. 181	mm. 183	mm. 189	mm. 181	mm. 182	mm. 186	mm. 185	mm. 186	mm. 181	mm. 203	mm. 166	mm. 179	mm. 173	mm. 168	mm. 171.5	mm. 176
Breadth of head	mm. 148	mm. 158	mm. 172	mm. —	mm. 156	mm. 168	mm. 168	mm. 159	mm. 155	mm. 157	mm. 153	mm. 154	mm. 153	mm. 152	mm. 147	mm. 155	mm. 164	mm. 151	mm. 154	mm. 118	mm. 147	mm. 151	mm. 151	mm. 147	mm. 151
Height of face	mm. 110	mm. 126	mm. 115	mm. 119	mm. 111	mm. 131	mm. 120	mm. 132	mm. 106	mm. 118	mm. 113	mm. 114	mm. 119	mm. 104	mm. 112	mm. 120	mm. 114	mm. 121	mm. 117	mm. 82	mm. 85	mm. 96	mm. 101	mm. 101	mm. 96
Breadth of face	mm. 138	mm. 147	mm. 147	mm. 145	mm. 154	mm. 154	mm. 155	mm. 157	mm. 147	mm. 148	mm. 143	mm. 148	mm. 146	mm. 144	mm. 142	mm. 144	mm. 148	mm. 141	mm. 146	mm. 115	mm. 120	mm. 125	mm. 128	mm. 127	mm. 128
Height of nose	mm. 45	mm. 56	mm. 52	mm. 50	mm. 44	mm. 56	mm. 50	mm. 57	mm. 52	mm. 55	mm. 50	mm. 45	mm. 50	mm. 43	mm. 52	mm. 48	mm. 45	mm. 51	mm. 50	mm. 32	mm. 32	mm. 37	mm. 42	mm. 40	mm. 40
Breadth of nose	mm. 37	mm. 39	mm. 39	mm. 40	mm. 39	mm. 43	mm. 40	mm. 44	mm. 38	mm. 40	mm. 40	mm. 36	mm. 42	mm. 35	mm. 38	mm. 42	mm. 38	mm. 36	mm. 40	mm. 27	mm. 29	mm. 29	mm. 35	mm. 31	mm. 35
Length-breadth index	83.1	79.8	93.0	—	85.2	86.6	92.8	83.2	80.7	86.7	83.6	81.5	84.5	83.5	79.0	83.8	88.2	83.4	75.9	89.2	82.1	87.3	89.9	86.0	85.8
Facial index	79.7	85.7	78.2	82.1	72.1	85.1	77.4	84.1	72.0	79.7	79.0	77.0	81.5	72.2	78.9	83.4	77.0	85.8	80.1	71.3	70.8	76.8	78.9	79.5	75.0
Nasal index	82.2	69.6	75.0	80.0	88.6	76.8	80.0	77.2	73.1	72.7	80.0	80.0	84.0	81.4	73.1	97.7	84.4	70.6	80.0	84.4	90.6	78.4	83.3	77.5	87.5
Index of arm	44.9	43.9	43.5	45.4	45.5	45.2	46.0	46.1	44.7	44.5	46.5	44.1	44.9	—	43.6	42.4	43.1	44.5	—	40.7	—	43.2	42.3	41.5	49.7
Index of finger-reach	103.2	103.8	104.0	105.8	107.5	106.0	108.7	107.6	105.5	104.6	106.8	103.4	101.9	94.2	106.4	102.3	105.7	105.6	102.4	96.1	—	101.3	98.2	96.8	100.4
Index of height, sitting	51.8	51.4	54.6	54.1	51.8	51.5	52.6	51.6	52.8	51.8	49.4	53.1	51.5	51.9	52.2	52.6	55.8	51.4	51.7	59.8	57.4	58.1	52.8	55.0	54.5
Index of width of shoulders	22.2	23.7	24.0	23.0	24.3	23.7	23.4	21.7	22.8	24.6	22.9	22.7	—	—	23.2	22.3	23.5	22.2	20.5	—	23.5	22.1	21.6	19.9	21.4

1 Father of Nos. 16, 17, and 18.

2 Mother of half-bloods Nos. 2, 4, and 18.

3 Son of No. 10; brother of Nos. 17 and 18.

4 Son of No. 10; brother of Nos. 16 and 18.

5 Son of No. 69; brother of No. 51.

6 Son of No. 10.

7 Father of No. 20.

11. *Nilokya'pamua.*

c. Upper Utamkt of Boston Bar and North Bend.

I. Males.

22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
David	Billy Dick Silis'qan	?	Nicolas	Suasial'at	Alexis	Joseph	Andrew Bob	George Macginty	Lafaja	Jimmy Chap	Harry Skani	Jack Thompson Pia'at'ken	Sam Cook's Ferry	Dolupé'n	Yá'okwin	Charlie Telt'watsen	Siloh'ken	Qe'álík'a	Nkalk'elast	Qana'aya	U'apla	Ha'fisdan	Cilp'eta	Pak'oyaten	Tyotagí'ee'n	Lá'fct	Nqá'tumkan	Kula'ta
Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	
5	6	9	9	9	9	12	12	13	15	18	21	25	31	35	36	38	45	48	50	55	55	58	60	60	65	65	70-75	75
mm. 1,023 ¹	mm. 1,224	mm. 1,258 ²	mm. 1,280	mm. 1,370	mm. 1,303	mm. 1,453 ³	mm. 1,288	mm. —	mm. 1,526 ⁴	mm. 1,642	mm. 1,582	mm. 1,713	mm. 1,708	mm. 1,645	mm. 1,670	mm. 1,692	mm. 1,611 ⁵	mm. 1,635	mm. 1,550	mm. 1,477 ⁶	mm. 1,492	mm. 1,555	mm. 1,622	mm. 1,566	mm. 1,538	mm. 1,620	mm. 1,572	
783	971	1,023	1,138	1,116	1,053	1,180	1,022	—	1,243	1,320	1,260	1,407	1,372	1,340	1,383	1,351	1,328	1,332	1,285	1,214	1,218	1,258	1,350	1,292	1,280	1,308	1,313	
441	516	523	636 ⁷	573	551	598	569	—	689	728	720	746	633	724	725	745	748	744	691	664	663	682	713	760	672	741	716	—
1,033	1,198	1,220	1,285	1,392	1,292	1,432	1,324	—	1,553	1,728	1,683	1,796	1,773	1,710	—	1,761	1,708	1,760	—	1,524	1,510	1,610	1,745	1,707	1,552	—	1,672	1,558
593	644	693	698	723	707	775	714	714	823	897	862	905	933	874	873	903	817	863	843	765	790	830	816	808	797	843	815	793
225	246	251	274	308	290	319	293	312	324	377	386	408	407	384	363	377	362	375	381	311	327	365	364	334	354	348	361	348
173	168	171.5	176	177	180	177	175	170	182	181	183	186	194	190	185	188	184	189	191	189	177	195	188	191	182	185	176	—
151	151	147	151	148.5	150	152	153	156	148	158	159	156	165	165	157	156	161	161	160	158	151	155	162	160	151	154	156	—
96	101	101	96	106	103	111	101	112	116	117	122	120	121	140	116	120	121	126	117	117	110	130	118	124	121	130	—	—
125	128	127	128	130	130	131	135	133	136	142	149	148	148	151	150	151.5	148	151	154	143	139	149	153	150	148	143	143	—
37	42	40	40	42	43	45	45	47	52	53	53	48	51	62	50	55	52	51	47	53	53	55	47	55	51	56	61	—
29	35	31	35	35	35	34	35	33	38	39	37	38	41	34	36	40	39	40	40	40	41	41	41	43	38	40	38	—
87.3	89.9	86.0	85.8	83.9	83.3	85.9	87.4	91.8	81.3	87.3	86.9	83.9	85.1	86.8	84.9	83.0	89.1	85.2	83.8	83.6	85.3	79.5	86.2	83.8	83.0	83.2	88.6	85.1
76.8	78.9	79.5	75.0	81.5	79.3	84.7	74.8	84.2	85.3	82.4	81.9	81.1	81.8	92.7	77.3	79.5	81.8	77.9	76.0	81.8	79.1	87.3	77.1	82.7	81.8	90.9	79.0	76.5
78.4	83.3	77.5	87.5	83.3	81.4	75.6	77.8	70.2	73.1	73.6	69.8	79.2	80.4	54.8	72.0	72.7	75.0	74.1	85.1	75.5	77.4	72.7	87.2	78.2	74.5	71.4	61.3	75.4
43.2	42.3	41.5	49.7 ⁸	41.8	42.4	41.2	44.1	—	45.0	44.4	45.6	53.6	43.2	44.1	43.4	44.1	46.5	45.4	44.6	44.9	44.5	44.0	44.0	48.4	43.7	45.7	45.6	—
101.3	98.2	96.8	100.4	101.6	99.4	98.8	102.6	—	101.5	105.4	106.5	105.0	103.7	104.3	—	104.2	106.1	107.3	—	103.0	103.0	103.9	107.7	108.7	100.8	—	106.5	—
58.1	52.8	55.0	54.5	52.8	54.4	53.4	55.4	—	53.8	54.7	54.6	52.9	54.6	53.3	52.3	53.4	52.6	52.6	54.4	51.7	53.0	53.5	50.4	51.5	51.8	52.0	51.9	—
22.1	21.6	19.9	21.4	22.5	22.3	22.0	22.7	—	21.2	23.0	24.4	23.9	23.8	23.4	21.7	22.3	22.5	22.9	21.6	21.0	22.0	23.5	22.5	21.3	23.0	21.5	23.0	—

16 and 18.
51.⁸ Son of No. 10; brother of Nos. 16 and 17.¹² Father of No. 20.¹³ Father of No. 21.⁹ Son of Nos. 39 and 60.¹¹ Son of No. 42.¹⁴ Grandson of No. 42.¹⁵ Brother of No. 28.¹⁶ Brother of No. 24.

Utankt of North Bend

40

mi

1,48

1,20

63

1,51

80

31

11

12

11

11

11

11

11

11

11

11

11

11

11

11

11

11

11

11

11

11

0. 75
1 and 33.

	69	109	110	111	112	113	114
	Qilpé'igo	Ha'ko	Taan'en	Tleó'ska	Qozame'kan	Jim Tsiaqa'skt	Philip K'mi'ullam
	Utankt of North Bend	Ntlakyapamuq'ó'e	Ntlakyapamuq'ó'e	Ntlakyapamuq'ó'e	Ntlakyapamuq'ó'e	Ntlakyapamuq'ó'e	Ntlakyapamuq'ó'e
	4	60	65	65	65	65	65
mi	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,48	1,547	1,544	1,643 ⁴¹	1,543	1,684	1,641 ⁴²	
1,2d	1,273	1,290	—	1,287	1,413	1,328	
62	701	707	—	693	766	704	
1,5f	1,648	1,610	1,693	1,605	1,745	1,713	
80	813	793	878	783	880	870	
3f	329	365	383	341	365	372	
1i	196	197	189	180	186	190	
1 ²	151	153	158	146	150	146	
1 ³	125	128	115	120	120	125	
1	148	147	154	139	148	145	
	56	61	48	59	52	52	
	39	39	42	38	41	45	
8	77.0	77.7	83.6	81.1	82.0	76.8	
8	84.5	84.3	74.7	86.3	81.1	86.2	
7	69.6	68.9	87.5	64.4	78.8	86.5	
4	45.2	45.9	—	45.0	45.6	42.9	
10	106.3	104.6	103.2	104.2	103.9	104.4	
1	52.5	51.5	53.5	50.8	52.4	53.1	
1	21.2	23.7	23.4	22.2	21.7	22.7	

9. 4. 75 and 78.

10. 53.

²⁶ Daughter of No. 140

²⁷ Brother of No. 106.

c. Upper Tanket of Boston Bar and North Bend (continued).

		II. Females																								
Number.		51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Name.		Me'ma	Mary Jane	Cy'inggo	Mary Mahdela'pis	Christine Pits	Wau'a'igo	Therese Peter	Kelp'igo	Ma'v'isa	P'ix'ila	Ceele	Kusli'ila	Y'weet	Kuslopa'igo	Ö'inggo	Kuspe'igo	Tahar	Cimwina'k	Q'ile'igo	Mary N'quid'isa	Kusli'as	Nakw'ank	Tih'ma	Teg's'ia	
Age.		4	5	6	6	9	10	11	11	11	13	24	24	25	26	30	30	32	38	40	40	42	55	60	60	
Height, standing.		1.08.30 ¹	1.06.2	1.08.0	1.10.55	1.20.3 ²	1.33.5	1.31.0	1.38.6	1.44.7	1.52.7 ³	1.58.8 ⁴	1.50.1 ⁵	1.60.5	1.60.2 ⁶	1.50.1	1.59.3	1.52.7 ⁷	1.50.8	1.48.5 ⁸	1.43.0	1.56.6	1.45.6	1.52.3 ⁹	---	
Length of shoulder.		7.90	8.25	8.24	8.53	1.0.13	1.0.00	1.0.03	1.1.30	1.1.85	1.2.17	1.2.53	1.3.13	1.2.80	1.2.90	1.2.05	1.3.26	1.2.37	1.2.30	1.2.90	1.1.70	1.3.20	1.2.92	1.2.15	---	
Length of arm.		4.12	4.34	4.57	4.41	5.26	5.73	5.54	5.99	6.42	6.51	6.51	6.83	7.10	6.69	6.72	7.12	6.69	6.15	6.23	6.19	6.69	6.29	6.58	---	
Length of reach.		1.0.66	1.0.78	1.0.63	1.0.58	1.2.18	1.3.45	1.3.23	1.4.03	1.4.51	1.5.12	1.5.80	1.6.09	1.5.37	1.6.21	1.5.83	1.6.52	1.5.70	1.5.18	1.5.11	1.4.69	1.6.83	---	1.5.60	---	
Height of face.		5.50	5.60	5.80	6.27	6.83	7.08	7.15	7.32	7.60	8.16	8.34	8.61	8.27	8.65	8.30	8.70	8.28	7.99	8.04	7.87	7.85	7.56	7.97	7.50	
Width of face.		2.13	2.56	2.46	2.40	2.68	2.83	2.85	3.20	3.15	3.53	3.37	3.35	3.33	3.58	3.38	3.16	3.11	3.32	3.37	3.15	3.44	3.00	3.32	3.01	
Length of head.		16.8	16.2	16.5	16.1	16.8	16.9	15.1	17.2	17.1	18.4	18.2	18.0	17.9	18.5	17.6	16.9	17.3	17.8	18.1	17.6	18.8	18.3	17.6	18.1	
Length of neck.		13.5	14.6	14.1	14.6	15.9	15.3	14.2	14.1	15.5	15.6	15.1	15.6	14.4	15.0	14.6	14.6	15.8	15.3	14.6	15.1	15.3	14.5	14.9	15.3	14.3
Length of face.		12	9.1	9.2	9.1	9.7	9.3	9.3	9.8	10.6	11.2	10.7	11.9	11.6	11.9	11.6	11.0	11.6	11.0	10.9	11.9	10.7	11.0	10.4	10.8	11.0
Length of face.		115.5	127	123	119	126	128	124	128.5	131	141	140	146	141	143	134	134	137	137	144	134	135	146	136	136	141
Length of nose.		37	37	35	39	40	37	40	41	43	44	45	51	47	48	44	48	48	44	44	44	48	52	45	46	53
Length of nose.		27	27	22	30	29	32	28	32	35	34	35	37	34	37	32	33	34	37	34	33	36	40	42	42	34
Length of ear.		80.1	80.1	91.5	89.0	89.5	90.5	91.1	89.7	10.6	82.1	83.0	86.7	86.0	81.1	82.9	86.4	91.3	86.0	81.7	85.8	81.4	79.2	81.7	83.2	88.8
Length of ear.		86.0	71.7	71.8	70.5	77.0	72.7	75.0	76.6	80.9	79.5	82.3	81.5	84.4	81.1	82.1	81.7	80.3	75.7	88.8	79.3	75.3	76.5	79.4	76.1	75.0
Length of ear.		75.0	73.0	91.4	76.9	72.5	80.5	70.0	78.0	81.1	77.3	77.8	72.5	72.4	77.1	72.7	68.8	70.8	81.1	77.3	68.8	69.2	88.9	91.3	79.2	93.9
Length of ear.		41.2	40.9	42.5	40.5	41.7	43.1	42.3	43.1	44.3	42.5	42.3	43.0	47.9	41.8	41.8	43.7	42.7	42.1	43.3	41.5	43.1	43.3	---	40.5	40.7
Length of ear.		10.1	10.7	9.4	9.1	9.0	10.1	10.1	10.0	10.0	98.8	102.6	101.2	102.5	101.3	105.5	103.9	102.6	102.1	102.7	102.7	102.6	102.6	---	100.0	97.6
Length of ear.		55.0	53.1	53.7	57.5	54.2	53.2	54.6	52.7	52.1	53.3	54.2	54.2	55.1	55.9	55.3	54.7	51.1	52.9	54.3	55.1	50.0	51.8	52.1	---	55.0
Length of ear.		23.3	24.2	22.8	22.0	21.3	21.3	21.8	23.0	21.7	23.1	21.9	21.1	22.2	22.1	22.5	19.9	22.3	22.0	22.8	22.0	21.9	10.5	21.8	---	23.1

10 Mother of No. 20.

11 Mother of No. 21.

12 Mother of No. 22.

13 Sister of No. 61.

14 Sister of No. 62.

15 Daughter

16 Daughter of No. 61.

17 Daughter of No. 61.

18 Daughter of No. 61.

19 Daughter of No. 61.

20 Daughter of No. 61.

21 Daughter of No. 61.

22 Daughter of No. 61.

23 Daughter of No. 61.

24 Daughter of No. 61.

25 Daughter of No. 61.

26 Daughter of No. 61.

27 Daughter of No. 61.

28 Daughter of No. 61.

29 Daughter of No. 61.

30 Daughter of No. 61.

31 Daughter of No. 61.

32 Daughter of No. 61.

33 Daughter of No. 61.

34 Daughter of No. 61.

35 Daughter of No. 61.

36 Daughter of No. 61.

37 Daughter of No. 61.

38 Daughter of No. 61.

39 Daughter of No. 61.

40 Daughter of No. 61.

41 Daughter of No. 61.

42 Daughter of No. 61.

43 Daughter of No. 61.

44 Daughter of No. 61.

45 Daughter of No. 61.

46 Daughter of No. 61.

47 Daughter of No. 61.

48 Daughter of No. 61.

49 Daughter of No. 61.

50 Daughter of No. 61.

51 Daughter of No. 61.

52 Daughter of No. 61.

53 Daughter of No. 61.

54 Daughter of No. 61.

55 Daughter of No. 61.

56 Daughter of No. 61.

57 Daughter of No. 61.

58 Daughter of No. 61.

59 Daughter of No. 61.

60 Daughter of No. 61.

61 Daughter of No. 61.

62 Daughter of No. 61.

63 Daughter of No. 61.

64 Daughter of No. 61.

65 Daughter of No. 61.

66 Daughter of No. 61.

67 Daughter of No. 61.

68 Daughter of No. 61.

69 Daughter of No. 61.

70 Daughter of No. 61.

71 Daughter of No. 61.

72 Daughter of No. 61.

73 Daughter of No. 61.

74 Daughter of No. 61.

75 Daughter of No. 61.

76 Daughter of No. 61.

77 Daughter of No. 61.

78 Daughter of No. 61.

79 Daughter of No. 61.

80 Daughter of No. 61.

81 Daughter of No. 61.

82 Daughter of No. 61.

83 Daughter of No. 61.

84 Daughter of No. 61.

85 Daughter of No. 61.

86 Daughter of No. 61.

87 Daughter of No. 61.

88 Daughter of No. 61.

89 Daughter of No. 61.

90 Daughter of No. 61.

91 Daughter of No. 61.

92 Daughter of No. 61.

93 Daughter of No. 61.

94 Daughter of No. 61.

95 Daughter of No. 61.

96 Daughter of No. 61.

97 Daughter of No. 61.

98 Daughter of No. 61.

99 Daughter of No. 61.

100 Daughter of No. 61.

101 Daughter of No. 61.

102 Daughter of No. 61.

103 Daughter of No. 61.

104 Daughter of No. 61.

105 Daughter of No. 61.

106 Daughter of No. 61.

107 Daughter of No. 61.

108 Daughter of No. 61.

109 Daughter of No. 61.

110 Daughter of No. 61.

111 Daughter of No. 61.

112 Daughter of No. 61.

113 Daughter of No. 61.

114 Daughter of No. 61.

115 Daughter of No. 61.

116 Daughter of No. 61.

117 Daughter of No. 61.

118 Daughter of No. 61.

119 Daughter of No. 61.

120 Daughter of No. 61.

121 Daughter of No. 61.

122 Daughter of No. 61.

123 Daughter of No. 61.

124 Daughter of No. 61.

125 Daughter of No. 61.

126 Daughter of No. 61.

127 Daughter of No. 61.

128 Daughter of No. 61.

129 Daughter of No. 61.

130 Daughter of No. 61.

131 Daughter of No. 61.

132 Daughter of No. 61.

133 Daughter of No. 61.

134 Daughter of No. 61.

135 Daughter of No. 61.

136 Daughter of No. 61.

137 Daughter of No. 61.

138 Daughter of No. 61.

139 Daughter of No. 61.

140 Daughter of No. 61.

141 Daughter of No. 61.

142 Daughter of No. 61.

143 Daughter of No. 61.

144 Daughter of No. 61.

145 Daughter of No. 61.

146 Daughter of No. 61.

147 Daughter of No. 61.

148 Daughter of No. 61.

149 Daughter of No. 61.

150 Daughter of No. 61.

151 Daughter of No. 61.

152 Daughter of No. 61.

153 Daughter of No. 61.

154 Daughter of No. 61.

155 Daughter of No. 61.

156 Daughter of No. 61.

157 Daughter of No. 61.

158 Daughter of No. 61.

159 Daughter of No. 61.

160 Daughter of No. 61.

161 Daughter of No. 61.

162 Daughter of No. 61.

163 Daughter of No. 61.

164 Daughter of No. 61.

165 Daughter of No. 61.

166 Daughter of No. 61.

167 Daughter of No. 61.

168 Daughter of No. 61.

169 Daughter of No. 61.

170 Daughter of No. 61.

171 Daughter of No. 61.

172 Daughter of No. 61.

173 Daughter of No. 61.

174 Daughter of No. 61.

175 Daughter of No. 61.

176 Daughter of No. 61.

177 Daughter of No. 61.

178 Daughter of No. 61.

179 Daughter of No. 61.

180 Daughter of No. 61.

181 Daughter of No. 61.

11. *Nlakya'pamua* (continued).*Nlakya'pamua* o'z mixed.e. *Nlakya'pamua* o'z.

Females										I. Males																												
	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	
	Tsah'ago	Tsah'ago	Tsah'ago	K'as'as	Ajs	Tiopa'at	Kajaa	Tammy	Jimmy	Stephen M'Clare	K'otik'a'in	E'natl	Pezas'akt	Co'e'la	Tah'ak't	Kwa'mask'zn	Ted'l'inas'ekt	Qo'm'akt	Yilla's	Paul Tio's'ek	K'it'msk'o'lo'p'zn	Y'e'la	Dek'e'm'kan	Silias Nall'	Y'a'm'ank'zn	M'it'kan	K'it'ak't	Ted'ok'zn	Sk'e'p'e'zn	Pip'ak't'o'uk'zn	Qon'k'e'n	Ha'ko	Tau'zn	Tlio'lek'a	Qonaz'e'zn	Jim Tsia'p'akt	Philip K'ut'llan	
	M. Layton	M. Layton	M. Layton	M. Layton	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	Nlakya'pamua o'z	
	25	32	40	42	5	6	6	7-8	9	9	9	10	16	18	20	22	22	24	28	28	38	45	45	47	48	55	55	58	58	58	60	60	65	65	65	65	65	65
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
	1,392 ¹	1,530 ²	1,535 ³	1,546	1,633 ⁴	1,103 ⁵	1,113	1,210 ⁶	1,128 ⁷	1,305	1,267	1,270 ⁸	1,583	1,696	1,707 ⁹	1,726	1,651	1,688	1,673 ¹⁰	1,700	1,685	1,630	1,652	1,618 ¹¹	1,547 ¹²	1,629 ¹³	1,512	1,601	1,623 ¹⁴	1,603	1,635	1,547	1,544	1,613 ¹⁵	1,543	1,684	1,611 ¹⁶	
	16	1,310	1,257	1,272	1,253	812	840	914	955	902	1,047	1,012	1,017	1,203	1,390	1,398	1,400	1,370	1,402	1,382	1,406	1,397	1,318	1,376	1,313	1,298	1,353	1,220	1,317	1,370	1,312	1,341	1,273	1,290	—	1,287	1,113	1,328
	17	688	657	656	681	444	472	499	476	502	555	478	402	685	760	738	775	734	772	747	784	772	725	737	710	677	711	694	705	710	691	711	701	707	—	693	706	704
	18	1,610	1,580	1,525	1,580	1,003	1,103	1,153	1,201	1,150	1,313	1,266	—	1,606	1,790	1,751	1,822	1,746	1,783	1,760	1,883	1,770	1,690	1,755	—	1,623	1,648	1,623	1,690	1,672	1,656	1,742	1,618	1,610	1,693	1,605	1,745	1,713
	19	345	312	826	786	612	610	617	602	600	705	687	613	803	904	898	892	895	878	841	861	882	865	817	849	803	867	803	803	828	818	842	813	793	878	783	880	870
	20	838	832	313	225	219	218	260	268	285	273	273	309	353	402	376	395	384	381	398	370	383	378	370	359	371	363	314	385	358	348	329	365	383	341	365	372	
	21	171	187	189	178	161	168	172	172	170	177	182	173	177	181	187	186	192	192	186	189	184	181	184	192	180	187	179	185	186	187	191	196	197	189	180	183	190
	22	152	156	147	151	150	151	173	158	141	154	143	151	150	159	148	161	158	156	157	157	151	162	155	155	155	149	150	153	148	150	148	151	153	158	146	150	146
	23	120	108	108	108	93	93	97	94	102	102	102	102	115	122	119	118	121	125	127	120	118	115	118	125	117	123	119	119	110	116	117	125	128	115	120	120	125
	24	138	147	144	132	120	28	31	126	134	127	129	137	113	137	153	143	148	144	146	147	147	147	144	145	148	139	—	149	146	144	148	147	154	139	148	145	
	25	42	45	50	50	37	37	34	40	37	46	43	50	48	50	51	50	51	50	51	51	53	55	58	55	54	52	53	50	52	53	56	61	48	59	52	52	
	26	37	34	40	34	2	30	32	32	39	33	31	37	37	32	38	33	36	38	41	37	42	38	40	40	36	39	39	42	35	53	50	39	42	38	41	45	
	27	87.3	83.4	77.8	84.8	91.5	95.8	89.6	91.9	83.0	87.0	78.6	87.3	81.7	86.4	79.1	86.6	82.3	81.3	84.4	83.1	82.1	89.5	84.2	80.7	86.1	79.7	83.8	82.7	79.6	80.2	77.5	77.0	77.7	83.6	81.1	82.0	76.8
	28	87.7	81.6	76.6	77.7	77.5	75.8	74.8	74.0	74.6	76.1	80.3	79.1	83.9	85.3	86.9	77.1	84.6	84.5	88.2	82.2	80.3	78.2	80.3	86.8	80.7	83.1	85.6	—	73.8	79.5	81.2	81.5	87.1	74.7	86.3	81.1	86.2
	29	68.1	75.6	80.0	68.0	75.7	81.1	83.8	94.1	80.0	105.0	71.7	72.1	74.0	77.1	61.0	76.0	64.7	72.0	76.0	80.4	68.5	70.2	69.1	69.0	65.5	72.2	75.0	—	84.0	67.3	75.5	69.6	63.9	87.5	61.4	78.8	86.5
	30	43.3	43.0	42.6	48.9	43.2	42.9	43.4	39.4	44.4	42.7	42.1	36.4	43.4	41.7	43.2	44.8	44.4	45.7	44.7	46.1	46.0	44.5	45.9	43.8	43.7	43.9	46.0	44.1	43.8	43.2	43.6	45.2	45.9	—	45.0	45.6	42.9
	31	101.3	103.3	99.0	101.9	100.0	100.0	100.0	99.5	101.8	101.0	100.0	—	101.6	105.3	102.4	105.3	105.8	105.5	105.4	110.8	105.4	103.7	106.4	—	104.7	101.7	108.1	105.6	103.2	103.5	106.9	106.3	104.6	103.2	104.2	103.9	104.4
	32	53.1	53.1	53.6	50.7	49.4	50.5	53.7	57.2	53.1	54.1	54.1	48.3	50.8	53.2	52.5	51.6	54.3	52.0	50.4	50.6	52.5	53.4	49.5	52.4	51.8	53.5	53.2	50.2	51.1	51.1	51.7	52.5	51.5	53.5	50.8	52.4	53.1
	33	21.1	22.7	21.6	20.2	21.9	22.6	22.4	21.5	23.7	21.6	21.5	21.5	21.5	23.8	23.5	21.7	23.9	22.7	22.8	23.4	22.0	23.1	22.2	23.2	22.2	22.9	24.0	21.5	23.1	21.4	21.1	22.1	23.7	23.4	22.2	21.7	22.7

¹ Sister of No. 62.
² Daughter of No. 133.
³ Son of No. 133.
⁴ Son of No. 106; brother of No. 92.
⁵ Father of Nos. 75, 76, and 78.
⁶ Father of No. 153.

⁷ Mother of Nos. 31 and 35.
⁸ Mother of No. 67.
⁹ Daughter of Nos. 80 and 111; sister of Nos. 76 and 78.
¹⁰ Grandson of No. 146.
¹¹ Son of No. 106; brother of No. 86.

¹² Daughter of Nos. 80 and 111; sister of Nos. 75 and 78.
¹³ Father of No. 120.
¹⁴ Father of No. 82.
¹⁵ Brother of No. 106.

males

3	134
	Cilci/lugo
Ntlakyapamuq'o'e	Ntlakyapamuq'o'e
28	30
mm.	mm.
07 ²⁰	1,570
50	1,295
44	678
23	1,604
94	827
43	362
83	188
53	147
10	117
33	134
45	49
33	34
63.6	78.2
79.7	87.3
73.3	69.4
42.6	43.2
01.0	102.2
52.6	52.7
22.7	23.1

p. 96.

r of No. 85.

67 Son of

e. *Nlapiamun'ô'e and Upper Tribes mixed.*

males			II. Females								
3	134	157	158	159	160	161	162	163	164	165	166
	Clic'itgô	Téé'toé'tca	Ci'n'tgô	Zehé'btsa	Kótlgô'tlgô	Tenloqutcé'nak'	Kaapi'tza	Má'sútl	Kuslaq'nak	Kwazi'nik	K'ena'tgô
	Nlapiamun'ô'e	F. Lytton M. 1/2 Lytton 1/2 Okanagan	F. Lytton M. Spence's Bridge	F. Lytton M. Foster Bar	F. Nicola Valley M. Lytton	F. Spence's Bridge M. Lytton	F. Okanagan M. Lytton	F. Lytton M. Nicola	Stlaqá'yúq	F. Lytton M. Spence's Bridge	Stlaqá'yúq
28	30	8	17	19	29	30	33	37	37	39	40
m.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
07 ⁵⁶	1,570 ⁵⁶	1,555 ⁷⁰	1,533 ⁷¹	1,550 ⁷²	1,422	1,534 ⁷³	1,510 ⁷⁴	1,556	1,558	1,540 ⁷⁵	1,573 ⁷⁶
50	1,295	—	1,224	1,295	1,190	1,280	—	1,292	1,270	1,270	1,281
44	678	—	650	580	663	650	—	665	658	683	689
23	1,604	1,186	1,547	1,606	1,558	1,570	1,540	1,620	1,578	1,588	1,638
94	827	—	792	817	764	794	—	820	837	837	839
43	362	253	338	336	321	322	335	336	350	343	371
83	188	172	179	178	171	173	174	172	180	181	178
53	147	147	146	150	146	148	148	146	149	152	152
10	117	93	112	111	108	111	119	113	122	114	110
33	134	121	134	138	133	134	141	133	138	143	144
45	49	39	49	39	47	44	47	49	50	46	45
33	34	31	36	33	36	32	34	35	37	36	33
83·6	78·2	85·5	81·6	84·3	85·4	85·8	85·1	84·9	82·8	84·0	85·4
79·7	87·3	76·9	83·6	80·5	81·2	82·9	84·4	85·0	88·4	79·1	76·4
73·3	69·4	79·5	73·5	84·6	76·6	72·7	72·4	71·4	74·0	78·3	73·3
42·6	43·2	—	42·5	46·1	46·7	42·5	—	42·6	42·3	44·3	43·9
101·0	102·2	102·2	101·1	103·6	109·7	103·6	102·7	103·8	101·2	103·1	104·3
52·6	52·7	—	51·8	52·7	53·8	51·9	—	52·6	53·7	54·4	53·4
22·7	23·1	21·8	22·1	21·7	22·6	21·1	22·2	21·5	22·4	22·3	23·6

o. 96. 143; sister of No. 129. ⁵⁷ Grand-daughter of No. 106; sister of No. 85. Grandmother of Nos. 126 and 129. ⁵⁸ Grandmother of No. 89; ⁵⁹ Son of No. 152. ⁶⁰ Mother of No. 119. ⁶¹ Mother of No. 167.

11. *Nlakyapamua* (continued).*ua'o'e* (continued).f. *Nlakyapamua'o'e* and *Upper Tribes mixed*.

																I. Males.					II. Females										
136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	
He'sigo	Wutlaja'	Ntluqit'olisa'tgo	Relezi'ia	Milly Wene'makst	Ciquma'tgo	Ko-k'ona'tgo	Ko'edjoda'tgo	Gulja'tgo	Gwa'tgo	Silpe'nak	Manzma'tgo	Na'natgo	Tco'zes	Kosah'nik	Koe'tea	George	Kuk'taya'tl	Ye'temnuq	Snota	Toktu'us	Tec'to'ca	C'u'tgo	Zehe'bua	Kotigo'tgo	Tenloqu'et'nak'	Kaqi'tza	Ma'asid	Kuslaq'nak	Kwazi'nik	K'ena'tgo	
Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	Nlakyapamuq'o'e	F. Lytton M. Foster Bar	F. Lytton M. $\frac{1}{2}$ Lytton $\frac{1}{2}$ Spence's Bridge	F. Lytton M. $\frac{1}{2}$ Spence's Bridge, $\frac{1}{2}$ Sluiceway	F. $\frac{1}{2}$ Spence's Bridge $\frac{1}{2}$ Lytton M. Lytton	F. Spence's Bridge M. Lytton	F. Lytton M. $\frac{1}{2}$ Lytton $\frac{1}{2}$ Okanagan	F. Lytton M. Spence's Bridge	F. Lytton M. Foster Bar	F. Nicola Valley M. Lytton	F. Spence's Bridge M. Lytton	F. Okanagan M. Lytton	F. Lytton M. Nicola	Stiaq'yuo	F. Lytton M. Spence's Bridge	Stiaq'yuo	
32	35	36	40	40	45	52	53	55	55	55	58	60	60	60	75	11	13	40	42	70	8	17	19	29	30	33	37	37	39	40	
mm. 1,548 ³⁸	mm. 1,505	mm. 1,623 ³⁹	mm. 1,490 ⁴⁰	mm. 1,561 ⁴¹	mm. 1,537	mm. 1,487	mm. 1,552 ⁴²	mm. 1,514	mm. 1,498	mm. 1,451 ⁴³	mm. 1,470	mm. 1,428 ⁴⁴	mm. 1,537	mm. 1,562	mm. 1,423 ⁴⁵	mm. 1,330 ⁴⁶	mm. 1,440 ⁴⁷	mm. 1,594	mm. 1,540 ⁴⁸	mm. —	mm. 1,155 ⁴⁹	mm. 1,593 ⁵⁰	mm. 1,650 ⁵¹	mm. 1,422	mm. 1,534 ⁵²	mm. 1,510 ⁵³	mm. 1,556	mm. 1,558	mm. 1,540 ⁵⁴	mm. 1,573 ⁵⁵	
1,258	1,227	1,332	1,238	1,292	1,273	1,197	1,286	1,246	1,245	1,160	1,220	1,163	1,307	1,283	1,170	1,085	1,177	1,294	1,270	—	—	1,224	1,295	1,190	1,280	—	1,292	1,270	1,270	1,281	
674	682	718	650	664	653	639	679	696	634	620	633	632	692	680	646	585	634	703	668	—	—	650	580	663	650	—	665	658	683	689	
1,565	1,605	1,655	1,477	1,586	1,565	1,512	1,600	1,612	1,487	1,490	1,486	1,469	—	1,590	1,437	1,360	1,483	1,695	1,623	—	1,186	1,547	1,606	1,558	1,570	1,540	1,620	1,578	1,588	1,638	
812	777	868	803	802	830	825	810	761	810	761	753	733	793	825	717	701	783	846	847	808	—	792	817	764	794	—	820	837	837	839	
340	329	345	301	336	338	330	348	323	306	333	338	316	327	337	313	291	328	394	369	355	253	338	336	321	322	335	336	350	343	371	
174	179	178	181	182	170	174	186	184	181	184	181	186	179	186	189	183	179	183	181	191	172	179	178	171	173	174	172	180	181	178	
144	140	148	141	146	144	152	147	143	152	148	142	152	147	149	148	153	149	1 2	158	160	117	146	150	146	148	148	146	149	152	152	
109	119	113	113	112	105	120	111	114	112	110	108	116	108	115	113	105	102	108	122	128	93	112	111	108	111	119	113	122	114	110	
137	130	139	127	142	135	141	142	132	138	140	136	135	134	136	143	131	136	153	145	149	121	134	138	133	134	141	133	138	143	144	
42	53	45	51	50	43	50	47	50	49	49	51	52	47	53	54	42	36	48	49	58	39	49	39	47	44	47	40	50	46	45	
31	31	35	35	35	33	36	38	37	38	40	32	35	38	37	41	33	38	38	39	40	31	36	33	36	32	34	35	37	36	33	
82.8	78.2	83.1	77.9	80.2	84.7	87.3	79.0	77.7	84.0	80.4	78.5	81.7	82.1	80.1	78.3	83.6	83.2	88.5	87.3	83.8	85.5	81.6	84.3	85.4	85.8	85.1	84.9	82.8	84.0	85.4	
78.8	91.5	81.3	89.0	78.9	77.8	85.1	78.2	86.4	81.2	84.6	79.4	85.9	80.6	84.6	79.0	80.2	75.0	70.6	84.1	85.9	76.9	83.6	80.5	81.2	82.9	84.4	85.0	88.4	79.1	76.4	
73.8	58.5	77.8	68.6	70.0	76.7	72.0	80.9	74.0	77.6	81.6	62.7	67.3	80.9	69.8	75.9	78.6	106.0	79.2	79.6	69.0	79.5	73.5	84.6	76.6	72.7	72.4	71.4	74.0	78.3	73.3	
43.5	45.2	44.3	43.6	42.6	42.3	42.9	43.8	46.1	42.3	42.8	43.1	44.2	44.9	43.6	45.5	44.0	44.0	44.2	43.4	—	—	42.5	46.1	46.7	42.5	—	42.6	42.3	44.3	43.9	
101.0	106.3	102.2	99.1	101.6	103.5	103.2	106.8	99.1	102.8	101.1	102.7	—	101.9	102.6	102.3	103.0	106.6	105.1	—	—	102.2	101.1	103.8	109.7	102.6	102.7	103.8	101.2	103.1	104.3	
52.4	51.3	53.6	53.9	51.4	53.9	55.4	52.3	50.6	54.0	52.5	51.2	51.4	51.5	52.9	50.5	52.7	54.4	53.2	55.0	—	—	51.8	52.7	53.8	51.9	—	52.6	53.7	54.4	53.4	
21.9	21.8	21.3	20.2	21.4	21.9	22.2	22.5	21.4	20.4	23.0	23.0	22.1	21.2	21.6	22.1	21.9	22.8	24.8	24.0	—	21.8	22.1	21.7	22.6	21.1	22.2	21.5	22.4	22.3	23.6	

Mother of No. 134.

³⁸ Sister of No. 128.³⁹ Grand-daughter of No. 106; sister of No. 116; twin sister of No. 127.⁴⁰ Daughter of No. 118.⁴¹ Grand-daughter of No. 143; sister of No. 129.⁴² Grand-daughter of No. 166; sister

Mother of No. 121.

⁴³ Mother of Nos. 82 and 130.⁴⁴ Mother of half-blood No. 17.⁴⁵ Daughter of No. 118.⁴⁶ Grandmother of Nos. 126 and 129.⁴⁷ Mother of No. 119.⁴⁸ Grandmother of No. 89;⁴⁹ Father of No. 155.⁵⁰ Daughter of No. 162.⁵¹ Sister of No. 65⁵² Daughter of No. 166; sister of No. 152.⁵³ Mother of No. 119.⁵⁴ Mother of No. 157.

1.
) ⁸⁷
:
:
E
:
-
:
:
:
:
:
:

0	8
2	7
7	7
—	—
5	—
8	—
2	—
2	—

1. *Ntlakya**atci'nemuq mixed with Shuswap and Okanagan.*

		Males		II. Females					
	185	191	202	203	204	205	206	207	208
	Tsellegé'sket		Paa	Tcé'a	A'ngó	Tsekzé'lza	Télini'nak	quaic'hik	Wa'q'tgo
	Nkamtel'nemuq	M. Nkamtel'nemuq	F. Sequa'pamuq M. Nkamtel'nemuq	F. Nkamtel'nemuq M. $\frac{1}{2}$ Okanagan A. Nkamtel'nemuq	F. $\frac{1}{2}$ Nkamtel'nemuq F. $\frac{1}{2}$ Sequa'pamuq M. Nkamtel'nemuq	F. Okanagan M. Nkamtel'nemuq	F. Okanagan M. Nkamtel'nemuq	F. $\frac{1}{2}$ Sequa'pamuq A. Nkamtel'nemuq M. Nkamtel'nemuq	F. Nkamtel'nemuq M. $\frac{1}{2}$ Sequa'pamuq A. Nkamtel'nemuq
	95	0	75	6	26	50	50	53	65
1. mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
87 —	1,004	1,600	1,101	1,533	1,602	1,611	1,562 ⁸⁴	1,424	
—	823	1,827	893	1,273	1,297	1,324	1,297	1,178	
—	425	719	493	662	707	687	678	636	
—	1,083	1,648	1,113	1,571	1,680	1,635	1,575	1,490	
—	536	832	616	801	853	837	840	726	
—	250	337	229	328	355	325	333	321	
—	189	194	187	167	183	191	172	177	178
—	158	150	156	143	144	147	147	152	150
—	101	114	107	92	121	112	113	110	102
—	144	147	151	122	136	139	135	140	143
—	52	53	56	38	47	49	51	43	48
—	41	40	42	29	37	36	34	35	37
0	83.6	87.3	83.4	85.6	78.7	77.0	85.5	85.9	84.3
2	70.1	77.6	70.9	75.4	89.0	80.6	83.7	84.6	71.3
7	78.8	85.5	75.0	76.3	78.7	73.5	66.7	81.4	77.1
5	—	45.3	45.0	44.8	43.3	44.2	42.7	43.5	44.8
8	—	95.2	103.0	101.2	102.7	105.0	101.6	101.0	104.9
2	—	52.3	52.0	56.0	52.4	53.3	52.0	53.8	51.1
2	—	21.9	21.1	20.8	21.4	22.2	20.2	21.3	22.6

⁸² Brother of
186, and of 1.⁸⁶ Father of No. 167.⁸⁷ Father of No. 188.

g. Nkamte' n'emuq.

Number.	I. Males																		186	187	
	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184			
Name	Kiyu'yua	Qé'o	Nowá'wasget	Kiká'los	Thomas Kain'm	Kué'tessa	Lesel's'tem	Quistamni'tsa	Kalni'tsa	Gu'laten	Tsá'la	Waipa'tet	Kwacoceli'	Kolomascu't	Nixamé'lt	Ta'qsa	Yé'lo'ska	Thuqá'os	Tselqé'sket	Tlenuqna'tgo	Thuti'qk-én
Tribes	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq	Nkamte' n'emuq
Age	7	21	25	25	29	30	33	38	40	50	50	51	54	55	58	65-70	70	75	95	5	6
Height, standing . . .	mm. 1,127 ⁷⁷	mm. 1,850 ⁷⁸	mm. 1,674 ⁷⁹	mm. 1,716 ⁸⁰	mm. 1,655	mm. 1,600 ⁸¹	mm. 1,563 ⁸²	mm. 1,645 ⁸³	mm. 1,660 ⁸⁴	mm. 1,513	mm. 1,610	mm. 1,703 ⁸⁵	mm. 1,657 ⁸⁶	mm. 1,655	mm. 1,660	mm. 1,602	mm. —	mm. 1,540 ⁸⁷	mm. —	mm. 1,046 ⁸⁸	mm. 1,108 ⁸⁹
Height of shoulder . .	884	1,569	1,369	1,413	1,338	1,296	1,300	1,372	1,348	1,228	1,350	1,400	1,384	1,362	1,353	1,341	—	1,246	—	850	887
Length of arm	471	836	756	779	738	711	707	749	715	689	707	777	729	770	751	764	—	686	—	439	464
Finger-reach	1,145	1,855	1,768	1,828	1,720	—	1,660	1,708	1,685	1,601	1,662	1,830	1,685	1,810	1,774	1,724	—	1,614	—	1,032	1,075
Height, sitting	600	926	887	898	878	823	833	842	864	810	842	876	862	834	874	827	—	773	—	593	613
Width of shoulders . .	265	408	385	392	410	363	374	382	371	369	343	393	333	371	380	362	—	341	—	225	258
Length of head	173	202	187	195	191	186	190	179	187	197	181	190	181	187	198	185	186	188	189	161	162
Breadth of head	154	162	163	160	161	155	151	153	153	158	148	150	152	151	151	158	161	156	158	138	151
Height of face	90	135	118	131	124	110	116	129	120	125	111	128	115	122	118	119	123	115	101	90	113
Breadth of face	124	151	151	149	148	143	144	143	147	155	140	148	145	148	145	146	150	149	144	116	126
Height of nose	38	55	51	53	50	48	52	56	52	53	52	55	49	54	48	60	50	55	52	37	42
Breadth of nose	33	41	38	36	35	40	38	35	37	41	41	36	40	38	36	38	45	40	41	31	30
Length-breadth index . .	89.0	80.2	81.8	82.1	84.3	83.3	79.5	85.5	81.8	80.2	81.8	78.9	84.0	80.7	76.3	85.4	86.6	83.0	83.6	86.0	93.2
Facial index	72.6	89.4	78.1	87.9	83.8	76.9	80.6	90.2	81.6	80.6	86.4	86.5	79.3	82.4	81.4	81.5	82.0	77.2	70.1	77.6	89.7
Nasal index	86.8	74.5	74.5	67.9	70.0	83.3	73.1	62.5	71.2	77.4	78.8	65.5	81.6	70.4	75.0	63.3	90.0	72.7	78.8	83.8	71.4
Index of arm	41.7	45.2	45.3	45.3	44.7	44.5	45.3	45.4	43.1	45.6	43.9	45.7	43.9	46.4	45.2	47.7	—	44.5	—	41.8	41.8
Index of finger-reach . .	101.3	100.3	105.9	106.3	104.2	—	106.4	103.5	101.5	101.0	103.2	107.6	101.5	109.1	106.9	107.8	—	104.8	—	98.3	96.9
Index of height, sitting .	53.1	50.1	53.1	52.2	53.2	51.4	53.4	51.0	52.0	53.6	52.3	51.5	51.9	50.2	52.7	51.7	—	50.2	—	56.5	55.2
Index of width of shoulders .	23.8	22.1	23.1	22.8	24.8	22.7	24.0	23.2	22.3	24.4	21.3	23.1	20.1	22.3	22.9	22.6	—	22.2	—	21.4	23.2

⁷⁷ Son of Nos. 179 and 207.⁷⁸ Brother of No. 170⁷⁹ Son of No. 197; brother of No. 175.⁸⁰ Brother of No. 168.⁸¹ Brother of No. 173.⁸² Brother of No. 172.⁸³ Daughter of No. 192.⁸⁴ Daughter of No. 178.⁸⁵ Daughter of No. 184.⁸⁶ Mother of No. 186, and of half-blood No.

11. *Ntlakya'pamua* (continued).h. *Nkamtel'nemua* mixed with *Shuswap* and *Okanagan*.

		II. Females														I. Males			II. Females					
84	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208
Tluq'as	Tselqé'sket	Tlmaq'na'tgo	Tkutli'q'én	Konkan	Qozapé'unik	Cuvasé'té'tgo	Steak'oe'nék	Tak'ama	Tarl'nek Yopa't'go	Cumaqa'tgo	Qasa'ska	Zikezi'ktsa	Wazé'nék	Tli'tgo	Lea'tgo	K'ozadi'sket	Sia't'q'en	Paa	Tee'a	A'ulgo	T-e-kze't'za	Tetlin'nek	quale'nik	Wa'q'tgo
Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	Nkamtel'nemua	F. Nkamtel'nemua M. $\frac{1}{2}$ Nkamtel'nemua $\frac{1}{2}$ Sequa'pamua	F. Okanagan M. Nkamtel'nemua	F. Sequa'pamua M. Nkamtel'nemua	F. Nkamtel'nemua M. $\frac{1}{2}$ Okanagan $\frac{1}{2}$ Nkamtel'nemua	F. $\frac{1}{2}$ Nkamtel'nemua $\frac{1}{2}$ Sequa'pamua M. Nkamtel'nemua	F. Okanagan M. Nkamtel'nemua	F. Okanagan M. Nkamtel'nemua	F. $\frac{1}{2}$ Sequa'pamua $\frac{1}{2}$ Nkamtel'nemua M. Nkamtel'nemua	F. Nkamtel'nemua M. $\frac{1}{2}$ Sequa'pamua $\frac{1}{2}$ Nkamtel'nemua
75	95	5	6	16	17	19	32	35	37	40	48	52	60	68	70	48	60	75	6	26	50	50	53	65
mm. 540 ⁸⁷	mm. —	mm. 1,046 ⁸⁸	mm. 1,108 ⁸⁹	mm. 1,565 ⁹⁰	mm. 1,642	mm. 1,612	mm. 1,576	mm. 1,555 ⁹¹	mm. 1,590	mm. 1,605	mm. 1,543	mm. 1,520	mm. 1,470 ⁹²	mm. 1,477 ⁹³	mm. 1,516	mm. 1,718	mm. 1,604	mm. 1,600	mm. 1,101	mm. 1,533	mm. 1,602	mm. 1,611	mm. 1,562 ⁹⁴	mm. 1,424
246	—	850	887	1,274	1,363	1,303	1,307	1,295	1,314	1,300	1,265	1,272	1,204	1,225	1,238	1,383	1,323	1,327	893	1,273	1,297	1,324	1,297	1,178
686	—	439	464	683	756	705	685	688	687	720	679	642	669	655	702	758	725	719	493	662	707	687	678	636
814	—	1,032	1,075	1,565	1,693	1,647	1,630	1,585	1,680	1,688	1,573	1,550	1,571	1,510	1,593	1,798	1,683	1,648	1,113	1,571	1,680	1,635	1,575	1,490
773	—	593	613	819	823	857	818	793	846	832	789	780	754	716	788	900	836	832	616	801	853	837	840	726
341	—	225	258	354	373	329	332	347	371	355	323	313	312	327	323	388	350	337	229	328	355	325	333	321
188	189	161	162	184	185	174	178	189	180	178	183	179	186	179	180	187	194	187	167	183	194	172	177	178
156	158	138	151	154	149	148	148	144	153	144	145	148	148	142	143	150	150	156	143	144	147	147	152	150
115	101	90	113	118	118	119	110	114	110	117	109	116	108	115	98	114	114	107	92	121	112	113	110	102
149	144	116	126	136	140	135	134	136	145	138	133	135	140	135	138	146	147	151	122	136	139	135	140	143
55	52	37	42	45	47	47	47	49	49	55	50	50	46	54	48	48	53	56	38	47	49	51	43	48
40	41	31	30	35	34	36	39	40	39	30	40	40	36	40	45	38	40	42	29	37	36	34	35	37
83.0	83.6	86.0	93.2	83.7	80.5	85.1	83.1	76.2	85.0	80.9	79.2	82.7	79.6	79.3	79.7	80.2	77.3	83.4	85.6	78.7	77.0	85.5	85.9	84.3
77.2	70.1	77.6	89.7	86.8	90.8	88.1	82.1	83.8	75.9	84.8	82.0	85.9	83.1	85.2	71.0	78.1	77.6	70.9	75.4	89.0	80.6	83.7	84.6	71.3
72.7	78.8	83.8	71.4	77.3	72.4	76.6	83.0	81.6	79.6	54.5	80.0	80.0	78.3	74.1	93.8	79.2	75.5	75.0	76.3	78.7	73.5	66.7	81.4	77.1
44.5	—	41.8	41.8	43.8	46.1	43.8	43.4	44.1	43.2	45.0	44.1	42.2	45.5	44.3	46.2	44.1	45.3	45.0	44.8	43.3	44.2	42.7	43.5	44.8
104.8	—	98.3	96.9	100.0	103.2	102.3	103.2	101.6	105.7	105.5	102.1	102.0	106.9	102.0	104.8	104.5	105.2	103.0	101.2	102.7	105.0	101.6	101.0	104.9
50.2	—	56.5	55.2	52.5	50.2	53.2	51.8	50.8	53.2	52.0	51.3	51.3	51.3	48.4	51.8	52.3	52.3	52.0	56.0	52.4	53.3	52.0	53.8	51.1
22.2	—	21.4	23.2	22.7	20.4	21.0	22.2	23.3	22.2	21.0	22.6	21.2	22.1	21.3	22.6	21.9	21.1	21.1	20.8	21.4	22.2	20.2	21.3	22.6

⁸⁷ Brother of No. 172.
No. 186, and of half-blood No. 5.⁸⁸ Son of No. 198.
⁸⁹ Mother of Nos. 169 and 175.⁹⁰ Son of No. 197; brother of No. 169.
⁹¹ Mother of No. 174.⁹² Father of No. 187.
⁹³ Mother of No. 167.⁹⁴ Father of No. 167.⁹⁵ Father of No. 188.

21

Intergroup

(Служба)

III

1,4

8 1.2

5

66

1 | 1,58

2 / 81

34

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

17

11

150

102

134

40

46

33

85.7

79.9

71.7

111

45.7

06-0

06:8

54.8

23.0

1

of Shuswa

13. Okanagan.

emales				ales			I. Male	II. Females		Males	
21	22	23	225	1 8	9	10	1	2	3	1	2
(Chukchukwuk)	Minnie Axime	Lisette Andrew	Victoire Mary	Nkonda'skt Tco'sigo	Catherine Falardeau	Nellie Falardeau	Allen Edward	Julienne François Shileta	Victoire	Simon Kamloops	Edward Moreno
	Sequa'pamuq (Kamloops)	Sequa'pamuq (Chukchukwuk)	Sequa'pamuq (Kamloops) Sequa'pamuq (Enderby)	F. Sequa'pamuq M. 1/2 Sequa'pamuq M. 1/2 Spuzzum, 1/2 Mulatto	F. 1/2 French 1/2 Sequa'pamuq M. Sequa'pamuq	F. 1/2 French, 1/2 Sequa'pamuq M. Sequa'pamuq	Okanagan	Okanagan	Okanagan	F. White M. Okanagan	F. 1/2 Mexican, 1/2 Okanagan M. Okanagan
14	16	236		9 16	18	22	12	12	18	11	11
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,481	1,449	1,585	1,550	1,264	1,588	1,584	1,352	1,354	1,552	1,355	1,270
1,212	1,174	1,271	1,024	1,180	1,297	1,293	1,103	1,103	1,284	1,087	999
677	641	691	531	637	710	681	590	610	710	600	542
1,580	1,512	1,636	1,284	1,498	1,680	1,643	1,380	1,396	1,623	1,369	1,262
811	798	838	691	759	822	840	733	740	820	738	708
341	325	363	261	346	361	359	297	302	350	288	281
175	184	181	181	179	185	184	179	174	188	177	183
150	156	151	156	154	159	156	150	150	147	145	143
107	110	111	112	110	111	112	111	99	110	97	103
134	143	141	150	131	137	142	134	131	140	126	123
46	43	45	38	43	51	47	43	41	43	41	44
33	31	33	32	37	38	37	32	29	33	30	34
85.7	84.8	82.8	87.8	86.0	85.9	85.1	83.8	86.2	78.2	81.9	78.1
79.9	76.9	90.0	74.0	74.5	78.2	81.2	82.8	75.6	84.6	77.0	83.7
71.7	72.1	75.7	84.2	86.0	74.5	78.7	84.4	70.7	76.7	73.2	77.3
45.7	44.2	44.1	42.7	43.3	44.7	43.1	43.7	45.2	45.8	44.1	42.7
106.8	104.3	103.4	101.6	101.9	105.7	104.0	102.2	103.4	104.7	100.7	99.4
54.8	55.0	53.3	55.0	51.6	51.7	53.2	54.3	54.8	52.9	54.3	55.8
23.0	22.4	23.1	20.9	23.5	22.7	22.7	22.0	22.4	22.6	21.2	22.1

of Shuswap No. 16; of No. 1.

11. *Ntlakya'pamua* (continued).i. Half-blood *Ntlakya'pamua*.

Number.	I. Males												II. Females								I. Males								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	1	2	3	4	5	6	7	8	
Name	Peter Duncan	Nathan Oppenheim	Willy Duncan	David Oppenheim	T. J. J. Walkin	Jimmy William	Jimmy	Ka'o	Georgie	Willy Michel	William Hans	Jimmy Duncan	Annie Duncan	Louise Duncan	Haisa'tgo	K'leis'tgo	Rosie	Rachael Oppenheim	T. J. J. Duncan	Mrs. Michel	D. naid	George Akria	Harry Duncan	Alexander Bob	Xavier Johnny	Pierre Henry	Marcelle	Philip Joseph	
Tiobe	F. and M. $\frac{1}{2}$ Ntlakya'pamua, $\frac{1}{2}$ White	F. German Jew M. Spuzum	F. and M. $\frac{1}{2}$ Ntlakya'pamua, $\frac{1}{2}$ White	F. German Jew M. Spuzum	Scotch M. Ntlakya'pamua	F. White M. Ntlakya'pamua	M. Ntlakya'pamua	F. American M. Ntlakya'pamua	F. White M. Ntlakya'pamua	F. Ntlakya'pamua, $\frac{1}{2}$ White, $\frac{1}{2}$ Spuzum	F. German M. Ntlakya'pamua	F. Scotch M. Ntlakya'pamua	F. and M. $\frac{1}{2}$ Ntlakya'pamua, $\frac{1}{2}$ White	F. and M. $\frac{1}{2}$ Ntlakya'pamua, $\frac{1}{2}$ White	F. English M. Ntlakya'pamua	F. White M. Ntlakya'pamua	F. French M. Ntlakya'pamua	F. German Jew M. Spuzum	F. White M. Ntlakya'pamua	F. Scotch M. Ntlakya'pamua	Sizua'pamua (Enderby)	Sizua'pamua (Kamloops)	Sizua'pamua (Kamloops)	Sizua'pamua (Kamloops)	Sizua'pamua (Kamloops)	Sizua'pamua (Kamloops)	Sizua'pamua (Enderby)	Sizua'pamua (Kamloops)	
Age	4	5	8	8	11	11	12	12	12	15	28	32	6	9	9	12	16	20	29	32	6	10	11	12	12	16	22	23	
Height, standing	mm. 956	mm. 1,018	mm. 1,280	mm. 1,204	mm. 1,324	mm. 1,343	mm. 1,387	mm. 1,316	mm. 1,402	mm. 1,615	mm. 1,694	mm. 1,694	mm. 1,210	mm. 1,301	mm. 1,188	mm. 1,643	mm. 1,584	mm. 1,572	mm. 1,601	mm. 1,113	mm. 1,237	mm. 1,301	mm. 1,350	mm. 1,396	mm. 1,498	mm. 1,763	mm. 1,678	mm. 1,678	
Front of shoulder	—	792	1,020	983	1,089	1,102	1,045	1,058	1,100	1,366	1,384	1,404	—	941	1,039	970	1,367	1,281	1,308	1,300	881	1,003	1,045	1,077	1,121	1,207	1,438	1,382	1,382
Length of arm	—	429	528	517	594	615	574	556	601	723	757	741	—	476	544	500	743	714	658	666	469	539	537	593	638	687	766	755	755
Fore-reach	—	1,014	1,255	1,181	1,370	1,440	1,333	1,346	1,393	1,712	1,783	1,750	—	1,200	1,300	1,176	1,704	1,648	1,514	1,500	1,172	1,293	1,296	1,368	1,476	1,614	1,814	1,766	1,766
Height, sitting	539	530	673	672	690	690	688	698	728	871	875	898	538	653	710	631	847	842	887	866	638	702	716	750	765	800	920	898	898
Width of shoulders	215	234	287	257	263	291	266	296	311	337	395	394	206	268	281	267	348	326	317	333	253	284	283	286	312	340	404	395	404
Length of head	167	178	174	178	185	173	176	178	184	178	190	195	165	169	173	168	173	175	180	180	172	173	176	183	180	184	192	192	192
Width of head	141	144	152	146	151	150	145	163	151	160	155	156	138	142	148	139	146	149	148	148	148	151	147	153	151	151	161	156	156
Height of face	81	87	91	101	100	100	100	102	107	106	115	115	84	92	97	94	112	110	113	113	99	105	104	109	105	108	121	121	121
Front of face	113	119	130	118	127	121	120	136	131	143	142	145	114	124	131	122	131	137	139	139	125	127	121	128	138	134	148	144	144
Length of nose	32	40	35	40	41	43	40	43	46	42	45	48	32	36	41	34	41	48	47	47	42	45	48	48	48	48	54	53	53
Width of nose	27	24	33	28	33	30	30	32	35	35	39	38	28	33	31	32	34	33	35	35	33	31	28	34	35	36	41	38	41
Length, middle index	84.4	80.9	87.3	82.0	81.6	86.7	82.1	91.6	83.7	89.9	81.6	80.0	83.6	84.0	85.5	82.7	84.4	85.1	82.2	81.8	86.0	87.1	83.5	83.6	83.9	82.4	85.4	81.3	81.3
Length, index	71.7	73.1	70.0	85.6	78.7	80.6	83.3	75.0	81.7	74.1	81.0	79.3	73.7	74.2	74.0	77.0	85.5	80.8	81.8	80.8	79.2	82.7	83.9	85.2	76.1	80.6	81.8	81.0	82.1
Length, middle	84.4	60.0	94.3	70.0	80.5	69.8	75.0	84.4	76.1	83.8	86.7	79.2	87.5	91.7	75.6	94.1	77.3	80.8	74.5	64.5	78.6	68.3	58.3	70.8	72.9	75.0	75.9	71.7	74.4
Length, thumb	—	42.1	41.2	43.1	45.0	45.9	41.3	42.1	44.2	44.1	44.8	44.0	—	39.4	41.9	42.0	45.3	45.2	41.9	41.1	41.1	42.8	42.9	43.9	45.6	45.8	44.1	45.0	44.4
Fore-reach, over-reach	—	100.0	98.0	98.7	105.3	107.2	95.9	102.0	102.4	104.4	105.5	103.6	—	99.2	100.0	98.8	103.9	104.3	98.3	99.0	102.8	102.6	99.7	101.3	105.4	107.6	106.0	105.1	107.4
Fore-reach, sitting	56.4	52.0	52.6	56.0	52.3	51.5	49.5	52.9	53.5	53.1	51.8	53.1	—	54.0	54.6	53.0	51.6	53.3	56.5	58.0	56.0	55.7	55.1	55.6	54.7	53.3	52.9	53.5	52.9
Fore-reach, width of shoulders	22.5	22.9	22.4	21.1	20.6	21.7	19.1	22.4	22.9	20.5	23.4	23.1	—	22.1	21.6	22.4	21.2	20.6	20.2	20.8	22.2	22.6	21.8	21.2	22.3	22.7	23.2	22.5	24.4

* Son of Nos. 11 and 25.

* Father of No. 1.

* Father of half-bloods Nos. 1 and 8.

* Mother of

12. Shuswap.

12A. Shuswap Half-bloods.

13. Okanagan.

13A. Half-blood
Okanagan.

I. Males												II. Females												I. Males				II. Females				I. Male		II. Females		Males		
4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	1	2	3	4	5	6	7	8	9	10	1	2	3	1	2
Alexander Bob	Xavier Johnny	Pierre Henry	Marcelle	Philip Joseph	Antoine Célestin	George St. Paul	Nicola	Paul	John Pihet	Prosper	Patrick	TU'HAKEM	Marianne Auguste	Jolie Castoir	Rosalie Daniel	Augustine Enoch	Julie Célestin	Minnie Axime	Lisette Andrew	Victoire Dury	Nkomlask	André Manuel	Basil Falardeau	Alexander Leonard	Maggie Falardeau	Lizette Ignaz	Amy Manuel	Trésoré	Ch. thérine Falardeau	Nellie Falardeau	Allen Edward	Julienne François	Victoire	Simon Kamloops	Edward Moreno			
Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (End-ry)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Enderby)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Clinton)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Chuklukwuk)	Sigou'jamuq (Chuklukwuk)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Chuklukwuk)	Sigou'jamuq (Kamloops)	Sigou'jamuq (Enderby)	F. Sigou'jamuq M. 1/2 Shuswap, 1/2 Malatto	F. Sigou'jamuq M. 1/2 Shuswap, 1/2 White	F. 1/2 French, 1/2 Sigou'jamuq M. Sigou'jamuq	F. White M. Sigou'jamuq	F. 1/2 French, 1/2 Sigou'jamuq M. Sigou'jamuq	F. English M. Sigou'jamuq	F. Sigou'jamuq M. 1/2 Shuswap, 1/2 White	F. 1/2 French, 1/2 Sigou'jamuq M. Sigou'jamuq	F. 1/2 French, 1/2 Sigou'jamuq M. Sigou'jamuq	Okanagan	Okanagan	Okanagan	F. White M. Okanagan	F. 1/2 Mexican, 1/2 Okanagan M. Okanagan			
12	12	16	22	23	24	25	30		36	37	40	9	10	11	12	13	14	16	236	9	9	12	13	8 or 9	10	13	16	18	22	12	12	18	11	11				
1,350	1,396	1,498	1,763	1,678	1,633	1,714	1,682	1,677	1,716	1,677	1,609	1,172	1,308	1,376	1,340	1,467	1,381	1,449	1,585	1,263	1,218	1,390	1,427	1,213	1,341	1,468	1,466	1,388	1,584	1,352	1,351	1,552	1,355	1,270				
1,077	1,121	1,207	1,438	1,382	1,330	1,427	1,383	1,330	1,403	1,367	1,311	933	1,136	1,112	1,092	1,178	1,212	1,174	1,271	1,029	930	1,105	1,137	953	1,064	1,183	1,180	1,297	1,293	1,103	1,103	1,234	1,087	909				
503	638	687	766	755	718	758	754	777	769	732	705	609	684	628	612	615	677	611	611	538	490	500	607	522	591	655	637	710	681	590	610	710	600	542				
368	476	1,614	1,814	1,766	1,751	1,837	1,827	1,771	1,818	1,791	1,713	1,166	1,362	1,466	1,409	1,484	1,580	1,512	1,623	1,280	1,273	1,448	1,328	1,233	1,408	1,447	1,498	1,680	1,613	1,380	1,396	1,625	1,369	1,262				
286	765	800	920	898	861	932	901	871	902	892	865	650	717	752	747	822	811	798	892	603	656	736	788	964	727	773	759	822	810	733	740	820	738	708				
296	312	310	404	395	402	401	415		391	410	387	255	297	315	305	299	341	325	304	263	266	307	305	269	307	316	346	361	359	297	302	350	288	281				
183	180	184	192	192	193	201	187		180	200	191	198	177	171	179	176	179	175	184	198	181	176	175	184	175	175	179	185	184	179	174	188	177	183				
153	151	151	161	156	160	160	168		156	154	161	166	143	140	148	142	151	150	156	159	149	159	149	147	150	156	159	159	156	150	160	147	145	143				
109	105	108	121	121	123	131	133		119	120	125	129	99	108	109	106	118	107	110	112	97	98	108	107	97	98	103	102	111	112	111	99	110	97	103			
128	138	131	148	144	149	152	158		140	160	152	154	121	126	128	129	131	134	143	145	131	123	123	132	124	132	137	137	142	138	134	131	140	126	123			
48	48	48	54	53	54	60	60		56	53	56	48	41	44	46	45	44	46	43	53	38	44	43	44	41	39	46	43	51	47	43	41	43	41	44			
34	35	36	41	38	40	42	39		41	43	43	41	31	30	34	32	34	33	37	336	32	33	33	32	34	32	34	37	38	37	32	29	83	30	84			
36	83.9	82.1	85.4	81.3	83.1	79.6	89.8	89.9	85.2	77.0	84.3	83.8	80.8	81.9	82.7	80.7	81.4	85.7	84.8	82.8	84.7	85.7	81.0	84.0	85.7	87.1	86.0	85.9	85.1	83.8	86.2	78.2	81.9	78.1				
32	76.1	80.6	81.8	81.0	82.6	86.2	84.2	84.3	91.5	80.0	82.2	77.9	81.8	84.1	85.2	82.2	84.1	79.9	76.9	80.0	74.0	78.4	86.2	81.1	78.2	74.2	75.2	74.5	78.2	81.2	82.8	75.6	77.0	83.7				
38	72.9	75.0	75.9	71.7	74.1	70.0	70.5	70.5	73.2	81.1	79.8	85.4	75.6	68.2	73.9	71.1	77.3	71.7	72.1	84.2	75.7	84.2	76.0	73.3	72.7	82.9	73.9	78.6	74.5	76.7	84.4	70.7	76.7	73.2	77.3			
39	45.6	45.8	44.1	45.0	44.0	43.4	44.0	43.0	44.4	44.7	44.8	43.8	43.6	42.2	45.5	45.7	42.7	45.7	44.2	44.1	42.7	40.2	42.4	42.4	43.1	44.1	44.6	43.3	41.7	43.1	43.7	45.2	45.8	44.1	42.7			
43	105.4	107.6	106.0	105.1	107.6	105.6	108.7	104.9	106.3	106.6	106.4	106.4	99.7	104.0	106.2	105.1	103.1	106.8	104.3	103.4	103.4	104.2	100.0	101.9	105.1	105.2	101.9	105.7	101.0	102.2	103.4	101.7	100.7	99.4				
46	54.7	53.3	52.9	53.5	52.8	53.6	53.6	52.7	50.7	52.4	53.1	53.7	55.6	54.7	54.5	55.7	57.1	54.8	55.0	53.3	51.1	55.0	53.8	53.0	55.1	54.9	54.3	52.6	51.6	51.7	53.2	54.3	54.8	52.9	54.3			
2	22.3	22.7	21.2	23.5	24.7	23.0	24.7	22.7	22.0	22.7	24.4	24.0	21.8	23.7	22.8	22.8	20.6	23.0	22.4	23.1	20.9	21.8	22.1	21.3	22.2	22.9	21.5	23.5	22.7	22.7	23.0	22.4	22.6	21.2	22.1			

* 1 and 8.

* Mother of No. 1.

* Son of Shuswap No. 16; brother of No. 8.

* Daughter of Shuswap No. 18; of No. 1.

Stature of Men of Tribes of the Pacific Coast.

Cm.	144	146	148	150	152	154	156	158	160	162	164	166	168	170	172	174	176	178	180	182	184	186	188	Ave- rages	Number of Cases, Observers.
Eskimo of Labrador	-	-	-	-	-	-	5	3	2	3	1	2	-	-	-	-	-	-	-	-	-	-	-	157.5	26 Sornberger
Eskimo of Alaska.	-	-	-	-	-	-	-	1	6	4	5	5	7	4	-	2	-	-	-	-	-	-	-	165.8	34 —
Tlingit	-	-	-	-	-	6	4	-	-	-	2	-	-	-	4	3	-	1	1	2	-	-	-	173.0	15 Hendrichson, Krause, Brown
Haida	-	-	-	-	-	-	-	-	-	-	5	5	5	3	5	4	1	1	1	1	1	-	-	169.5	88 Brown
Nase River Indians	-	-	-	-	-	-	-	-	1	5	3	2	2	3	3	-	1	-	-	-	-	-	-	167.0	20 Boas
Tsimshian	-	-	-	-	-	-	-	-	-	3	5	4	2	5	2	6	1	1	-	-	-	-	-	169.3	29 Brown
Bilqula	-	-	-	-	-	1	-	3	3	1	2	4	2	4	2	4	1	-	-	-	-	-	-	166.0	26 Boas
Kwakwaka	-	-	-	-	-	-	1	1	1	7	6	3	8	1	-	-	-	-	-	-	-	-	-	164.4	40 Boas
Delta of Fraser River	-	1	1	1	1	1	1	1	1	7	6	3	8	1	-	-	-	-	-	-	-	-	-	161.8	80 Boas and Greer
Harrison Lake	-	2	1	1	1	1	1	1	2	-	2	3	8	-	-	1	-	-	-	-	-	-	-	158.0	11 Boas
Spuzzum	-	-	-	-	-	2	-	2	1	5	4	3	8	-	-	1	-	-	-	-	-	-	-	160.5	22 Boas and Greer
Utanikt	-	-	2	-	2	1	1	1	1	1	1	1	1	1	2	-	-	-	-	-	-	-	-	161.0	12 Boas
Ntlaqyapamuq n'e.	-	-	-	-	-	1	4	2	3	3	8	5	8	3	4	1	-	-	-	-	-	-	-	162.7	44 Boas and Greer
Nkamtel nemiug	-	-	-	-	-	1	-	1	-	2	-	3	4	-	-	-	-	-	-	-	1	-	-	165.7	15 Boas
Shuswap, Kamloops	-	-	-	-	-	-	-	1	1	2	2	4	6	16	1	4	3	2	1	-	-	-	-	167.9	43 Boas, Greer, Watt
Northern Shuswap	-	-	-	-	-	2	-	1	1	3	6	6	9	5	5	6	2	2	2	-	-	-	-	166.8	51 Watt
Okanagan	-	-	-	-	-	-	-	1	1	1	4	8	12	10	13	8	4	7	-	-	-	-	-	168.1	69 Greer and Lawrence
Tinnel	-	-	-	-	-	1	-	1	1	4	2	1	2	1	1	2	1	1	1	-	-	-	-	163.7	18 Watt
Cowitchan and Clallam	-	-	-	-	-	-	-	-	2	-	3	1	3	2	-	1	1	1	-	1	-	-	-	169.4	18 Brown and Waughop
Puget Sd., Makah, Quinault	-	-	-	1	1	1	5	7	14	13	11	13	10	6	6	3	2	1	-	-	-	-	-	164.5	93 Waughop and Boas
Shinook	-	-	-	-	-	-	2	1	1	1	3	4	2	1	3	3	1	-	-	-	-	-	-	169.1	23 O'Neill and Boas
Shapatin	-	-	-	-	-	-	-	1	1	-	4	11	6	11	11	8	9	6	3	-	-	-	-	169.7	71 Moncreiff and Stro- minger
Coast of Oregon	-	-	-	-	-	1	4	1	12	6	9	4	11	8	-	2	-	1	-	-	-	-	-	164.8	60 Boas and Lawrence
Klamath	-	-	-	-	-	1	1	1	1	2	5	3	4	3	3	4	1	-	1	-	-	-	-	167.9	30 Moncreiff
Hoopa	-	-	-	-	-	1	1	3	1	3	5	5	7	-	2	2	2	-	-	-	-	-	-	166.1	32 Moncreiff and Leng- feldt
Round Valley	-	-	-	-	-	1	3	2	1	4	6	6	-	2	1	1	1	-	-	-	-	-	-	161.8	30 Chesnut
Prute, Nevada	-	-	-	-	-	1	-	1	4	1	4	6	13	8	11	9	5	3	-	1	-	-	-	168.3	68 Biedenbach and Law- rence
Shosone and Ute	-	-	-	-	-	1	1	5	7	13	14	16	18	15	12	6	8	1	2	-	-	1	1	166.1	121 Bolton and Shaw

Stature of Women of Tribes of the Pacific Coast.

Cm.	136	138	140	142	144	146	148	150	152	154	156	158	160	162	164	166	168	170	172	174	176	178	Ave- rages	Number of Cases. Observers.
Eskimo of Labrador	1	1	1	1	2	1	1	2	4	1	—	—	—	—	—	—	—	—	—	—	—	—	148.0	16 Sornberger
Eskimo of Alaska.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155.1	26 —
Tlingit	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156.0	5 Hendrichson
Haida	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	157.3	8 Brown
Nass River Indians	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	154.3	18 Boas
Tsimshian . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158.4	18 Brown
Bilqula	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156.8	6 Boas
Kwakwaka . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	159.7	36 Boas
Delta of Fraser River	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	151.0	22 Greer
Harrison Lake .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	150.9	8 Boas
Spuzzum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152.7	15 Greer and Boas
Utá'mk't	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158.2	17 Boas
Nlakyapamuq'ó'e	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158.0	74 Greer and Boas
Nkamlet nemuq .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	157.7	12 Boas
Shuswap, Kamloops	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155.4	30 Greer and Boas
Northern Shuswap	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	153.9	28 Watt
Okanagan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156.5	35 Lawrence, Greer, Boas
Timneh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	158.5	15 Watt
Cowichan and Clallam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	156.4	10 Waughop and Brown
Puget Sd., Makah, Quinalt	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	154.0	75 Waughop
Chinook	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155.7	7 Moncreiff and Boas
Sahaptin	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	157.4	36 Strominger, Moncreiff, Wilgus, Boas
Coast of Oregon .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	154.5	26 Lawrence and Boas
Klamath	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	159.1	28 Moncreiff
Hoop	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155.9	17 Lengfeldt
Round Valley . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152.7	30 Chesnut
Piute, Nevada . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155.0	84 Biedenbach
Shoshone and Ute	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	152.9	20 Shaw and Bolton

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]

[illegible]

Breadth of Head of Men.

Mm.	{	146	148	150	152	154	156	158	160	162	164	166	168	170	172	174	Average	Number of Cases
<i>Tribes:</i>																		
Nass River Indians		—	—	1	—	—	3	4	5	3	4	4	1	—	—	—	161.5	25
Bilqula . . .		—	1	1	2	1	6	4	4	—	4	—	2	—	—	—	158.7	25
Harrison Lake . . .		—	—	—	—	2	—	—	2	1	2	2	—	2	1	—	164.5	15
Spuzzum . . .		—	—	—	—	3	2	2	—	2	1	—	2	1	—	—	159.7	12
Uta'mkt . . .		—	—	2	—	2	4	2	4	1	3	—	—	—	—	—	158.3	18
NlakyapamuQ'o'e . . .		—	—	2	2	3	2	2	2	2	—	—	—	—	—	—	153.7	26 ¹
Nkamtel'nemuq . . .	2	4	1	6	4	1	2	3	3	3	—	—	—	—	—	—	154.6	21
Shuswap . . .	—	—	—	—	—	1	2	—	3	1	1	1	1	—	—	—	160.7	10 ²
Oregonian Tinneh . . .	—	—	—	1	4	1	2	3	4	1	2	1	—	—	—	—	158.0	19

1 155.9 (37 cases), M. Greer.

² 158.6 (39 cases), M. Greer.

Breadth of Head of Women.

Mm.	{	140	142	144	146	148	150	152	154	156	158	160	162	164	Average	Number of Cases
		141	143	145	147	149	151	153	155	157	159	161	163	165		
<i>Tribe:</i>																
Nass River Indians	—	—	—	2	1	1	3	1	4	6	2	—	1	—	153.6	21
Kwakwiltl . . .	—	—	—	—	—	—	2	2	1	—	—	2	—	—	154.3	7
Harrison Lake . . .	—	—	—	1	1	1	3	2	—	1	2	1	—	1	153.9	12
Spuzzum . . .	—	—	—	—	1	—	—	3	1	—	—	—	—	—	151.8	5
Uta'mkt . . .	—	—	—	1	4	1	4	4	1	3	1	—	—	—	151.2	19
Ntlakypamuq'o'e . . .	2	2	2	3	8	8	3	6	1	—	—	—	—	—	147.7	33 ¹
Nkamtel'nemuq . . .	2	2	2	4	2	5	1	2	—	—	—	—	—	—	147.0	16
Shuswap . . .	—	—	—	—	1	—	—	—	—	2	—	1	—	—	154.8	4 ²
Oregonian Tinneh . . .	—	—	—	—	3	2	2	—	1	1	1	—	—	—	149.1	10

1 152.0 (58 cases), M. Greer.

² 155.1 (30 cases), M. Greer.

Height of Nose of Men.

Mm.	.	.	.	.	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Average	Number of Cases
Nass River Indians	.	.	.	.	1	3	4	2	—	5	3	1	—	—	—	1	—	—	—	—	—	—	50.8	20
Bilqula	.	.	.	.	—	—	—	—	2	—	3	—	3	—	—	—	2	2	—	2	—	2	57.7	25
Kwakintl	.	.	.	.	—	2	—	—	2	5	3	3	4	3	10	6	2	2	1	—	1	—	55.7	43
Harrison Lake	.	.	.	.	—	3	—	2	—	—	1	—	4	—	1	—	—	—	—	—	—	—	52.8	11
Spuzzum	.	.	.	.	—	—	—	3	1	2	3	1	1	2	1	—	—	—	—	—	—	—	53.9	13
Uta'mk't	.	.	.	.	1	1	—	—	1	1	3	2	2	—	—	1	—	—	—	1	—	—	53.2	12
Ntiakyapamuq'o'e	.	.	.	.	—	1	1	5	2	2	2	2	2	1	—	—	—	—	—	—	—	—	52.5	18
Nkamitci'nemuq	.	.	.	.	—	3	1	1	1	3	2	2	2	2	1	—	—	—	—	—	—	—	52.2	15
Shuswap	.	.	.	.	—	1	—	—	—	—	2	2	—	4	—	—	—	2	—	—	—	—	55.6	10
Oregonian Tinnah	.	.	.	.	—	—	—	1	4	2	2	2	—	—	1	1	—	1	—	—	—	1	55.0	19

Height of Nose of Women.

Mm.	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	Average	Number of Cases
Nass River Indians	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.2	19
Bilqula	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54.8	6
Kwakiutl	.	.	.	.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51.8	36
Harrison Lake	.	.	.	.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.4	10
Spuzzum	.	.	.	.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.5	4
Utá'mk't	.	.	.	.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.4	29
Ntiakyapamuq'o'e	.	.	.	.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.2	12
Nkamtoi'nemuq	.	.	.	.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48.4	9

Nass River Indians
Bilqula
Kwakintl

[illegible][illegible]

Breadth of Nose of Women.

Mm.	30	31	32	33	34	35	36	37	38	39	40	41	42	Average	Number of Cases
Nass River Indians	-	-	-	3	-	5	-	3	4	3	-	1	-	36.6	19
Bilqula	-	-	1	2	-	-	2	-	-	1	-	-	-	34.8	6
Kwakwiltl	1	3	2	3	2	11	2	5	3	4	-	-	-	35.2	36
Harrison Lake	-	1	-	-	3	2	1	1	-	1	1	-	-	35.5	10
Spuzzum	-	-	-	-	-	1	1	3	-	-	1	-	1	38.3	4
Uta'mk't	-	-	2	2	6	1	1	3	-	-	2	-	-	35.0	17
NtlakypamuQ'o'e	-	3	2	5	2	6	5	3	2	-	1	-	-	34.7	29
Nkamto'i'nEmuq	1	-	-	-	2	1	2	1	-	2	3	-	-	36.7	12

Length-breadth Index. Total Series.

[illegible]

Facial Index of Men.

Per cent.	{	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	Average	Number of Cases
		67	69	71	73	75	77	79	81	83	85	87	89	91	93	95		
<i>Tribe:</i>																		
Nass River Indians	3	—	—	—	1	3	2	4	2	2	1	2	—	—	—	—	77.0	20
Bilqula	—	—	—	—	—	—	1	6	4	3	8	3	3	1	—	—	83.6	29
Kwakwintl	—	—	—	—	—	—	2	3	2	3	6	8	5	7	2	1	86.7	38
Delta of Fraser River	—	—	—	—	—	—	1	—	2	1	1	—	—	—	—	—	79.2	7
Harrison Lake	—	1	1	2	2	3	2	2	1	2	—	—	—	—	—	—	76.2	12
Spuzzum	—	—	—	—	2	—	2	—	1	2	4	—	—	—	—	—	80.4	13
Uta mkt	—	—	—	—	—	—	3	2	5	3	—	1	—	—	1	—	81.5	12
Nlakyapamuq'o'e	—	—	—	1	1	1	1	2	3	2	4	2	1	—	—	—	81.6	17
Nkamteci'nemuq	—	—	—	—	—	—	1	3	4	2	1	2	1	1	—	—	82.8	15
Shuswap	—	—	—	—	—	—	1	—	2	2	3	1	—	1	—	—	83.6	10
Oregonian Tinneh	—	—	—	—	—	—	2	2	—	4	3	2	3	—	3	—	85.1	19

Facial Index of Women.

Per cent.	{	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	Average	Number of Cases
<i>Tribe:</i>																																			
Nass River Indians.				—	—	—	—	2	—	1	—	4	1	6	—	2	1	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.6	19
Bilqila		—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	83.0	6
Kwakwintl		—	—	—	—	—	—	—	—	—	—	3	3	3	3	2	2	6	3	3	8	1	—	2	2	3	—	2	—	—	—	—	—	84.8	33
Harrison Lake		—	—	—	—	1	—	—	—	2	2	1	1	—	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.4	9
Spuzzum		—	—	—	—	—	—	1	—	3	3	3	3	1	1	—	4	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77.8	4
Uta mkt		—	—	—	—	—	—	—	—	2	2	2	2	7	7	2	5	2	2	2	1	1	1	1	—	—	—	—	—	—	—	—	—	80.9	17
Nlakyapamuq'o'e		—	—	—	—	—	—	—	—	—	—	3	3	—	—	3	5	3	4	4	2	2	2	2	2	1	—	—	—	—	—	—	81.8	29	
Nkamtel'n'emuc		—	—	—	—	—	—	—	—	2	2	—	—	—	—	4	4	3	3	4	3	—	—	—	—	—	—	—	—	—	—	—	—	84.2	12
Oregonian Tinnah		—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	3	1	1	4	4	1	—	—	—	—	—	—	—	—	—	—	—	83.3	10

Facial Index of Women.

[illegible]

Vasa! Index of Men.

[illegible]

Nasal Index of Women.

[illegible]

Index of Length of Arm of Men.

Per cent.	{ from to	39.5 39.9	40.0 40.4	40.5 40.9	41.0 41.4	41.5 41.9	42.0 42.4	42.5 42.9	43.0 43.4	43.5 43.9	44.0 44.4	44.5 44.9	45.0 45.4	45.5 46.0	46.5 46.9	47.0 47.4	47.5 47.9	48.0 48.4	Average	Number of Cases
<i>Tribes:</i>																				
Nass River Indians.		—	—	—	—	—	—	1	1	—	2	2	4	2	3	2	—	—	45.4	19
Bilqula.		—	—	—	—	—	1	1	3	—	2	3	6	3	4	2	—	1	45.4	24
K'wakitl.		1	—	2	—	—	1	1	1	1	8	8	7	1	3	—	—	—	44.3	35
Harrison Lake		—	—	—	—	—	—	—	—	2	3	—	2	2	1	1	—	—	45.2	11
Spuzzum.		—	—	—	—	1	—	—	1	2	—	3	1	1	2	—	—	—	44.6	12
Uta'mkt.		—	—	—	—	—	—	—	2	1	3	3	1	1	—	1	—	—	44.5	12
Ntlayapamuq'o'e		—	—	—	—	—	—	—	3	4	3	3	2	2	3	—	—	—	44.5	18
Nkamtel'nemauq		—	—	—	—	—	—	—	1	2	1	2	6	1	—	—	—	—	44.9	15
Shuswap.		—	—	—	—	—	—	—	1	2	3	3	1	—	1	—	—	—	44.3	10
Oregonian Tinn'h.		—	—	—	—	—	1	2	—	1	2	6	1	—	1	—	—	1	44.7	17

Index of Length of Arm of Women.

Per cent.	{ from to	38.0 38.4	38.5 38.9	39.0 39.4	39.5 39.9	40.0 40.4	40.5 40.9	41.0 41.4	41.5 41.9	42.0 42.4	42.5 42.9	43.0 43.4	43.5 43.9	44.0 44.4	44.5 44.9	45.0 45.4	45.5 45.9	46.0 46.4	46.5 46.9	47.0 47.4	Average	Number of Cases
Tribes:																						
Nass River Indians.		—	—	—	—	—	—	—	—	—	2	3	1	5	—	4	3	—	—	—	44.3	18
Bilqula		—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—	—	45.2	5
Kwakiutl	1	1	—	—	—	—	4	5	9	1	4	—	—	1	3	—	1	1	—	—	42.5	32
Harrison Lake	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	2	2	—	—	—	45.0	8
Spuzzum	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—	44.8	3
Uta'mkt.	—	—	—	—	—	—	—	1	2	3	5	2	2	—	3	2	2	—	1	—	43.5	17
Ntlayapamuq'o'e	—	—	—	—	—	—	1	—	3	8	2	5	5	4	3	3	—	2	1	—	43.6	28
Nkamtel'nemauq	—	—	—	—	—	—	—	—	1	—	1	—	1	3	3	1	—	—	—	—	44.2	9
Oregonian Tinn'h.	—	—	—	—	—	—	—	—	—	1	3	2	2	3	—	1	—	1	—	—	43.8	12

Bilqula	1	4	5	9	1	4	1	3	2	1	1	423
Kwakiutl	1	—	—	—	—	—	—	1	3	2	—	8
Harrison Lake	—	—	—	—	—	—	—	1	3	1	—	3
Spuzzum	—	—	1	2	3	8	—	—	3	—	1	17
Uta'mk't	—	1	—	3	1	—	—	2	4	—	—	28
Ntla'yapamuq'o'e	—	1	—	—	1	—	—	5	3	1	—	9
Nkamit'el'menuq	—	—	—	—	—	—	—	2	3	1	—	12
Oregonian Timuc	—	—	—	—	—	—	—	1	3	—	—	438

Index of Height sitting of Men.

Tribe :	Per cent.		{ from . . . to										Average	Number of Cases										
	49-5	50-0	50-0	50-5	51-0	51-5	52-0	52-5	53-0	53-5	54-0	54-5			55-0	55-5	56-0	56-5	57-0	57-5	58-0	58-5	59-0	59-5
Nass River Indians	—	—	—	—	1	3	1	2	1	2	3	2	2	3	1	1	—	—	—	—	—	—	53-7	20
Bilqula . . .	—	—	1	—	1	—	—	2	2	6	2	2	2	—	1	—	—	—	—	—	—	—	53-8	24
Kwakwilt . . .	—	—	—	—	1	—	—	2	2	4	3	3	2	4	4	1	2	1	—	—	—	1	54-9	36
Harrison Lake . . .	—	—	—	—	—	—	—	1	2	3	—	—	1	—	—	—	—	—	—	—	—	—	53-1	10
Spuzzam . . .	—	—	—	—	2	4	—	3	3	1	1	2	—	—	—	—	—	—	—	—	—	—	52-8	13
Uta'mkt . . .	—	—	—	—	—	1	1	3	3	1	1	2	—	—	—	—	—	—	—	—	—	—	53-2	12
Nlaka'pamnu'q'e . . .	1	2	1	2	2	2	3	2	2	1	1	—	1	—	—	—	—	—	—	—	—	—	52-1	18
Nkamtel'ne'muq . . .	—	2	2	2	2	4	1	3	1	3	1	4	—	—	—	—	—	—	—	—	—	—	52-0	15
Shuswap . . .	—	—	1	—	—	—	1	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	52-9	10
Oregonian Timneh . . .	—	—	—	—	—	—	—	—	1	2	3	3	4	2	—	—	—	—	—	1	—	—	55-1	16

Index of Height sitting of Women.

Per cent.	{ from to
<i>Tribes:</i>	
Nass River Indians	
Bilqula . . .	— — — — —
Kwakwilt . . .	— — — — —
Harrison Lake . . .	— — — — —
Spuzzum . . .	1 — — — —
Ula'mkt . . .	— — — — —
Niak'yapamuq'o'e . . .	1 1 — — —
Nkamtel'nemqu . . .	— — — — —
Oregonian Tinnch . . .	— — — — —
49-0 49-5 50-0 50-5 51-0 51-5 52-0 52-5 53-0 53-5 54-0 54-5 55-0 55-5 56-0 56-5 57-0 57-5 58-0 58-5 59-0 59-5	Number of Cases
Average	
54-7	17
54-2	6
55-4	33
53-4	8
51-5	4
53-6	17
52-7	28
52-1	12
—	—

Index of Finger-reach of Men.

Per cent.	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	Average	Number of Cases
<i>Tribes:</i>																	
Nass River Indians .	—	—	—	—	—	—	1	2	4	3	6	3	—	—	—	106.4	19
Bilqula	—	—	—	—	—	1	2	2	4	1	5	4	—	1	1	106.7	24
Kwakwilt	—	2	1	—	—	1	2	6	5	6	5	3	—	2	—	105.6	35
Harrison Lake .	—	—	—	—	—	2	1	2	5	2	—	1	—	—	—	105.6	11
Spuzzum	—	—	—	—	—	—	3	2	4	1	2	1	—	—	—	105.5	13
Uta'mkt	—	—	—	—	1	1	3	2	1	2	1	—	—	—	—	104.6	10
Ntlakyápanuq'o'é .	—	—	—	—	1	1	3	2	7	2	—	1	—	1	—	105.2	17
Nkamtel'nemuq . .	—	—	—	1	3	—	2	2	1	3	1	—	1	—	—	104.5	14
Shuswap	—	—	—	—	—	—	—	—	3	4	1	1	—	—	—	106.5	10
Oregonian Tinnéh .	—	—	—	—	3	2	4	3	2	1	1	1	—	—	—	104.1	17

Index of Finger-reach of Women.

Per cent.	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	Average	Number of Cases
<i>Tribes:</i>																	
Nass River Indians .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103.2	18
Bilqula	—	—	—	—	—	1	2	5	2	3	1	1	1	—	—	105.7	6
Kwakwilt	1	—	—	3	—	2	6	8	1	6	1	2	2	1	—	102.6	35
Harrison Lake .	—	—	—	—	—	—	—	2	1	1	1	1	1	—	—	104.8	8
Spuzzum	—	—	—	—	—	—	1	5	2	—	1	—	1	—	—	101.8	4
Uta'mkt	—	—	—	1	1	1	4	6	2	—	—	—	—	—	—	102.3	16
Ntlakyápanuq'o'é .	—	—	1	—	2	—	7	6	5	4	—	2	—	—	1	102.7	28
Nkamtel'nemuq . .	—	—	—	—	—	—	3	4	2	—	3	—	—	—	—	103.1	12
Oregonian Tinnéh .	—	—	—	—	1	1	—	3	1	2	1	—	—	—	—	102.7	9

I conclude from the preceding tables that we must distinguish four types on the coast of British Columbia: the northern type, represented in our tables by the Nass River Indians; the Kwakiutl type; that of Harrison Lake and the Salish of the interior, as represented by the Okanagan, Flathead, and Shuswap. The Ntlakya'pamuq appear essentially as a mixed people.

In order to bring out the differences between these types clearly I will give the average values of the various measurements and indices side by side. I repeat, however, that these averages must not be considered as the types of the various series, which are evidently exceedingly complex, but only as indices of the general distribution.

	Nass River Indians	K wakiutl	Harrison Lake	Shuswap
I. MEN.				
Stature in mm.	1670	1644	1580	1679
Index of length of arm	45.4	44.3	45.2	44.3
Index of finger-reach	106.4	105.6	105.6	106.5
Index of height, sitting	53.7	54.9	53.1	52.9
Length of head	195.5	(196)	183.0	191.8
Breadth of head	161.5	(161)	164.5	160.7
Height of face	120.5	129.1	115.5	123.0
Breadth of face	156.5	150.4	151.5	149.2
Height of nose	50.8	55.7	52.8	55.6
Breadth of nose	40.1	39.3	37.5	40.8
Length-breadth index ¹	83.5	83.8	88.8	83.4
Facial index	77.0	86.7	76.2	83.6
Nasal index	79.5	71.6	72.0	74.0
II. WOMEN.				
Stature	1543	1537	1509	1554
Index of length of arm	44.3	42.5	45.0	—
Index of finger-reach	103.2	102.9	104.8	—
Index of height, sitting	54.7	55.4	53.4	—
Length of head	186.2	186.5	176.0	—
Breadth of head	153.6	154.3	153.9	154.8
Height of face	113.4	121.8	109.3	—
Breadth of face	143.2	143.1	140.3	143.5
Height of nose	45.2	51.8	49.4	—
Breadth of nose	36.6	35.2	35.5	—
Facial index	78.6	84.8	78.4	—
Nasal index	81.8	68.6	72.6	—

¹ Total series.

It will be noticed that the series of men and women agree very closely. The types expressed by these figures may be described as follows. The Nass River Indians are of medium stature. Their arms are relatively long, their bodies are short. The head is very large, particularly its transverse diameter. The same may be said of the face, the breadth of which may be called enormous, as it exceeds the average breadth of face of the North American Indian by 6 mm. The height of the face is moderate; therefore its form appears decidedly low. The nose is very low as compared with the height of the face, and at the same time broad. Its elevation

over the face is also very slight only. The bridge is generally concave, and very flat between the eyes. The Kwakiutl are somewhat shorter, their bodies are relatively longer, their arms and legs shorter than those of the first group. The dimensions of the head are very nearly the same, but the face shows a remarkably different type, which distinguishes it fundamentally from the faces of all the other groups. The breadth of the face exceeds only slightly the average breadth of face of the Indian, but its height is enormous. The same may be said of the nose, which is very high and relatively narrow. Its elevation is also very great. The nasal bones are strongly developed, and form a steep arch, their lower end rising high above the face. This causes a very strongly hooked nose to be found frequently among the Kwakiutl, while that type of nose is almost absent in all other parts of the Pacific coast. This feature is so strongly marked that individuals of this group may be recognised with a considerable degree of certainty by the form of the face and of the nose alone. It will be noticed that in this group the facial and the nasal indices of the women indicate that their faces are more leptoprosopic, their noses more leptorrhinic, than those of the men, while among almost all races the reverse is the case. This fact led me first to suspect that the artificial deformation which is more strongly developed among women might be the cause of the peculiar form of the face of this tribe. I have shown, however, in the preceding pages that the observations give no countenance to this theory. Besides this the Bilqula show the same features and the same relation between the two sexes, although the heads of the men are not deformed, and those of the women are deformed in a different manner. The measurements of Bilqula women can, however, claim no great weight, as they are too few in number.

The Harrison Lake type has a very short stature. The head is exceedingly short and broad, surpassing in this respect all other forms known to exist in North America. The face is not very wide, but very low, thus producing a chamæprosopic form the proportions of which resemble those of the Nass River face, while its dimensions are much smaller. In this small face we find a nose which is absolutely higher than that of the Nass River Indian with his huge face. It is, at the same time, rather narrow. The lower portion of the face appears very small, as may be seen by subtracting the height of the nose from that of the face, which gives an approximate measure of the distance from septum to chin. The values of this measurement for the four types are 69, 73, 62, and 67 mm. respectively.

The Shuswap represent a type which is found all over the interior of British Columbia, Idaho, Washington, and Oregon, so far as they are inhabited by Salishan and Sahaptin tribes. Their stature is approximately 168 cm. The head is shorter than that of the tribes of Northern British Columbia or of the Indians of the plains. The face has the average height of the Indian face, being higher than that of the Nass River Indians, but lower than that of the Kwakiutl. The nose is high and wide, and has the characteristic Indian form, which is rare in most parts of the coast. The facial and nasal indices are intermediate between those of the Kwakiutl and of the Nass River tribes.

I marked together with the measurements of the Indians certain descriptive features. I give here a tabulation of these observations, but only those taken during the journey of 1894, as I find that it is very difficult to compare descriptive features on account of the large personal equa-

erally concave, somewhat shorter, ter than those early the same, distinguishes it breadth of the ne Indian, but which is very at. The nasal their lower end hooked nose to f nose is almost e is so strongly ed with a con- d of the nose and the nasal leptoprosopic, e among almost to suspect that among women tribe. I have vations give no show the same ough the heads e deformed in a can, however,

The head is ex- er forms known t very low, thus resemble those haller. In this hat of the Nass rather narrow. may be seen by which gives an in. The values 2, and 67 mm.

e the interior of as they are in- s approximately Northern British e average height ver Indians, but ide, and has the the coast. The f the Kwakiutl

ians certain de- oservations, but it is very diffi- e personal equa-

tion of the observers, and even of the same observer at different times. The type which is being described exerts a deep influence upon the form of description. Thus when first visiting the Indians there is a tendency to describe the lips as thick because they are compared with those of the whites, while later on they are called moderate because Indian lips are compared among themselves. Descriptive features are, therefore, of no great value, owing to the inaccuracy of the terms involved. Still, some striking differences will be noticed in the following tabulations of the descriptive features of men from 20 to 59 years of age :—

	Bridge of Nose			Form of Nose			Point of Nose			
	High	Medium	Low	Concave	Straight	Convex	Long	Sho t	Thin	Thick
Nass River Indians	7	10	2	4	13	3	12	5	8	9
Kwakiutl	21	5	—	1	19	11	21	8	16	13
Uta'mk't	7	3	2	1	7	3	3	8	3	8
Ntakyapamuq'o'e	13	3	—	1	8	6	6	8	5	9
Nkamte'i'nEmuq	13	2	—	2	8	4	7	8	6	9

	Ear			Lobe of Ear					
	Large	Moderate	Small	Large	Small	Attached	Detached	Round	Triangular
Nass River Indians	12	6	2	14	6	13	6	15	5
Kwakiutl	11	14	3	17	12	9	20	26	3
Uta'mk't	4	8	—	10	2	6	6	10	2
Ntakyapamuq'o'e	5	11	—	9	7	9	7	14	2
Nkamte'i'nEmuq	4	8	3	7	6	6	7	8	5

This tabulation makes particularly clear the difference in the form of nose found among the various tribes.

I recorded the colour of the skin according to Radde's standard colours, and selected the forehead for my comparisons. I recorded the following tints among the various tribes :—

	32						33						
	1	m	n	o	p	q	1	m	n	o	p	q	r
Nass River Indians	1	—	—	—	—	1	2	1	—	3	1	—	1
Kwakiutl	—	—	—	—	—	1	2	—	2	7	8	7	2
Uta'mk't	—	—	—	—	—	—	—	1	1	1	1	2	—
Ntakyāpamuq'o'e	—	—	—	—	—	—	—	3	2	6	2	—	2
Nkamtel'nEmuq	—	—	—	—	—	—	—	—	2	1	—	—	—

It appears from these data that the Kwakiutl are the lightest among the people of the North Pacific coast, while the Nass River and Thompson Indians are considerably darker.

It is necessary to consider the cephalic index of the various tribes a little more closely, because it seems that among the tribes of Fraser River children are much more brachycephalic than adults. Investigations carried on by means of extensive material do not show any such differences, and

it is likely that more extended investigations would cause the apparent difference to disappear; but it is also possible that in this region we may find the length of head to increase more rapidly than the breadth of head. Among the Eastern Indians, and in different parts of Europe, we find a slight decrease of the cephalic index with increasing age, but in no case does the difference exceed 1 per cent. We find also that the heads of women are somewhat shorter than those of men. The following tabulation shows that among the northern tribes the same relations prevail, but that among the Ntlakyā'pamuq the heads of adults appear much more elongated than those of children.

Average Cephalic Index.

	Nass River Indians	Bilqula	Kwakiutl	Harrison Lake	Spuzzum	Utā'mk't	Ntlakyā'pamuq'ō'e	Nkamte'i'nemuq	Oregonian Tinnēh
Boys . . .	84.0(17)	83.6 (8)	85.5(6)	90.8 (3)	83.5 (1)	86.3(13)	86.9(12)	80.5 (1)	84.0(17)
Girls . . .	83.5(11)	—	82.5(5)	87.1 (5)	88.5(12)	88.5(12)	84.7(11)	87.8 (3)	84.4(10)
Men . . .	82.7(24)	84.7(24)	85.5(2)	89.8(18)	84.9(12)	84.9(17)	82.6(26)	82.0(21)	84.0(20)
Women . .	82.9(20)	—	82.9(7)	87.5(12)	82.5 (5)	83.1(19)	82.8(33)	81.7(17)	83.6(10)
Children .	83.8(28)	—	84.1(11)	88.5 (8)	83.5 (1)	87.4(25)	85.8(20)	88.2(4)	84.2(27)
Adults . .	82.6(44)	84.7(24)	83.5 (9)	88.8(27)	84.2(17)	84.0(36)	82.7(59)	81.9(38)	83.9(30)
Total . . .	83.5(73)	84.4(32)	83.8(21)	88.7(35)	84.1(18)	85.3(61)	83.6(85)	82.5(42)	84.0(57)

It appears from this comparison that even if the greater brachycephalism of the children on Fraser River should be the effect of a peculiar law of growth, the general relations of the cephalic indices of adults would remain unchanged, so that the preceding considerations remain unaltered when the total series or the adults alone are considered.

It is necessary to treat two groups of tribes a little more fully, namely, the Bilqula and the Ntlakyā'pamuq. The tables show clearly that the Bilqula are closely related to the Kwakiutl type, with which they have the high face and nose in common. The differences between the divisions of the Ntlakyā'pamuq have been discussed above. It remains to point out the probable cause of these differences. It is evident that the lower divisions, particularly those of Spuzzum and the Utā'mk't, are more alike to the Harrison Lake type than the divisions farther up the river. It is also evident that the Nkamte'i'nemuq resemble the Shuswap more than any other division of the Ntlakyā'pamuq.

A detailed comparison is given on the following table, which also includes the Oregonian Tinnēh.

It will be seen that, on the whole, an approach between the forms of Harrison Lake and that of the Shuswap is found. But the Ntlakyā'pamuq'ō'e occupy, in many respects, an exceptional position. Their heads are narrow, their faces are lower and narrower than those of their neighbours. They are narrower than those of any other Indians, with the exception of the Hoopa and Oregonian Tinnēh while the Shuswaps have a face as broad as the average Indian face. These differences between the absolute measurements of the face are also expressed in the indices. The

the apparent
region we may
readth of head.
ope, we find a
ge, but in no
that the heads
following tabu-
lations prevail,
ear much more

	Nkamtel'hemuq	Oregonian Tinnch
12)	89.5 (1)	84.0 (17)
14)	87.8 (3)	84.4 (19)
26)	82.0 (21)	84.0 (20)
33)	81.7 (17)	83.6 (19)
26)	88.2 (4)	84.2 (27)
59)	81.9 (38)	83.9 (30)
85)	82.5 (42)	84.0 (37)

greater brachy-
effect of a pecu-
indices of adults
erations remain
sidered.

re fully, namely,
clearly that the
which they have
en the divisions
ins to point out
the lower divi-
re more alike to
he river. It is
wap more than

, which also in-

en the forms of
the Ntlakyäpa-
n. Their heads
of their neigh-
ns, with the ex-
huswaps have a
ces between the
ne indices. The

Averages of Measurements.—Men.

Tribes	Stature	Length of Head	Breadth of Head	Height of Face	Breadth of Face	Height of Nose	Length-breadth Index	Facial Index	Nasal Index
Harrison Lake	1580(11)	183.0(15)	164.5(15)	115.5(11)	151.5(15)	52.8(11)	88.8(35)	76.2(12)	72.0(11)
Spuzzum	1605(22)	186.7(12)	159.7(12)	119.7(13)	148.7(13)	53.9(13)	83.5(12)	80.4(13)	79.0(13)
Uta'mk't	1610(12)	186.7(18)	158.3(18)	121.7(12)	148.7(18)	53.2(12)	85.3(61)	81.5(12)	75.9(12)
Ntlakyäpamuq'o'e	1627(44)	186.9(26)	153.7(26)	119.4(18)	146.2(25)	52.5(18)	83.6(85)	81.6(17)	73.3(17)
Nkamtel'hemuq	1657(15)	188.9(21)	154.6(21)	121.6(15)	147.4(21)	52.2(15)	82.5(42)	82.8(15)	73.6(16)
Shuswap	1679(43)	191.8(10)	160.7(10)	123.0(10)	149.2(10)	55.6(10)	83.4(25)	83.6(10)	74.0(10)
Oregonian Tinnch	1648(60)	188.9(19)	158.0(19)	125.3(20)	146.0(20)	55.0(19)	—	85.1(19)	—

Averages of Measurements.—Women.

Tribes	Stature	Length of Head	Breadth of Head	Height of Face	Breadth of Face	H. i. ht of Nose	Length-breadth Index	Facial Index	Nasal Index
Harrison Lake	1509 (8)	176.0(12)	153.9(12)	109.3(12)	140.3(12)	49.4(10)	87.5(12)	78.4 (9)	72.6(10)
Spuzzum	1527(15)	184.2 (5)	151.8 (5)	113.0 (3)	144.6 (5)	47.5 (4)	82.5 (5)	77.8 (4)	81.7 (4)
Uta'mk't	1532(17)	180.1(19)	151.2(19)	113.1(17)	139.9(19)	47.4(29)	83.1(19)	80.9(17)	74.7(17)
Ntlakyäpamuq'o'e	1530(74)	178.8(33)	147.7(33)	112.5(29)	135.8(33)	49.2(12)	82.8(33)	81.8(29)	74.6(29)
Nkamtel'hemuq	1577(12)	181.0(14)	147.0(16)	114.6(12)	137.6(16)	48.4 (9)	81.7(17)	84.2(12)	75.9(13)
Shuswap	1554(30)	—	154.8 (4)	—	143.5(30)	—	—	—	—
Oregonian Tinnch	1543(26)	180.9(10)	149.1(10)	115.7 (9)	138.7(10)	—	83.6(10)	83.3(10)	—

cephalic index decreases rapidly as we go up Fraser River, but it is higher among the Shuswap than among the Nkamteí'nemuq. The facial index increases quite regularly from Harrison Lake to the Shuswap, but we must remember that the face of the Ntlakyāpamuq'ō'e is much smaller than that of the Shuswap and that of the lower divisions of the Ntlakyā'pamuq. The nasal index is so variable that we cannot draw any conclusions from its average values.

It seems, therefore, that there is a disturbing element among the Ntlakyāpamuq'ō'e which hides among them the gradual approach of forms between the Harrison Lake type and that of the Shuswap. This fact does not seem surprising, as it is likely that mixture has taken place along Fraser River. The low values of the breadth of face remind us of the Tinneh tribes of Oregon and California, and I do not consider it unlikely that we may find here the effects of an admixture of Tinneh blood.

However the peculiarities of the Ntlakyāpamuq'ō'e may be explained, the fact remains that the Ntlakyā'pamuq, who represent a people speaking one language, are physically by no means homogeneous. The upper and lower divisions indicate clearly the effect of mixture with the neighbouring tribes; while the central group, 'the real Ntlakyā'pamuq,' present peculiarities of their own, which may be the old characteristics of the Ntlakyā'pamuq, or which may be due to admixture of Tinneh blood. The gradual change of type along Fraser River proves clearly that these tribes must have occupied these regions for very long times, and that the population has been very stable. The differences in type between the divisions of this people offer an excellent example of the fact that linguistic and anatomical classifications do not follow the same lines; that people who are the same in type, and must therefore be related in blood, may speak different languages; and that people who differ in type may speak the same language.

It remains to give a review of the number of children of women of the tribes which I investigated. The data obtained by means of this inquiry allow us to understand the causes of the diminution in numbers among these Indians, and suggest at the same time a possible remedy for this sad fact. I give here the number of living and deceased children of all the women whom I measured, arranged according to ages.

When we direct our attention to the average number of children of women of more than forty years of age, we find the following result:—

Nass River Indians	. . .	4.8 children (.6 cases)
Kwakiutl	. . .	3.5 " (20 ")
Utā'mkt	. . .	5.3 " (11 ")
Ntlakyāpamuq'ō'e	. . .	5.8 " (13 ")
Nkamteí'nemuq	. . .	5.8 " (10 ")

Although the number of observations is small, the general result is undoubtedly correct, and agrees with the relative number of children in the villages of the various groups, the number being very small among the Kwakiutl, and much larger among the other tribes. The number of children among the Ntlakyā'pamuq equals that found among the tribes of other parts of North America, while that of the Kwakiutl is much smaller.

The cause of the diminution of the tribes becomes clearest when we consider that group of mothers who may just begin to have adult children, that is, between the ages of thirty-five and forty-five years. At

these ages they will have children who are not yet mature, but a portion of these children will be adults. If the population were to remain stable, the number of children would have to be considerably more than twice that of the mothers. The actual distribution is shown by the following figures:—

Nass River Indians	3	mothers of 35-45 years of age have	5	living	4	dead children.
Kwakiutl	14	"	"	8	22	"
Uta'mkt	8	"	"	31	17	"
Ntlakya'pamuq'o'e	8	"	"	14	20	"
Nkamtel'nemuq	3	"	"	3	9	"

This table shows how exceedingly unfavourable the conditions are among the Kwakiutl, as fourteen mothers have produced considerably less than eight mature children. The figures prove also that a very slight improvement of the sanitary conditions among the Ntlakya'pamuq would produce an increase of the population.

The cause of the extremely unfavourable conditions among the Kwakiutl becomes particularly clear when the mothers are grouped in decades. When this is done we find the following result:—

Age of mother	20-30	30-40	40-50	50-60	60 and more.
Average number of children	2.7	2.1	1.6	5.2	4.9

That is to say, the maximum sterility is found among women who are now from forty to fifty years old, that is, who became mature about twenty-five or thirty years ago. This agrees closely with the time when the Kwakiutl sent their women most extensively to Victoria for purposes of prostitution. During the last decade a number of influential men among the tribe have set their influence against this practice, and we see at the same time a rapid increase in the number of children. The young women who have now an average number of 2.7 children may hope to regain the number of children which their grandmothers had. But the only hope of preserving the life of the tribe lies in the most rigid suppression of these visits of women to Victoria, which are still continued to a considerable extent, and in an effort to stamp out the diseases which have been caused by these visits.

II. THE TINNEH TRIBE OF NICOLA VALLEY.

In his Notes on the Shuswap People of British Columbia¹ Dr. G. M. Dawson first called attention to a Tinnéh tribe which used to inhabit the Nicola Valley, but which has become extinct. Some notes on the history of this tribe were given by Dr. Dawson according to information obtained from Mr. J. W. McKay, formerly Indian Agent at Kamloops, who has an extensive knowledge of the Indians of the interior. As parts of this information conflicted with reports which I had received, and as it seemed desirable to gather as much information as possible on this tribe, I resolved to visit them in the course of my investigations. Owing to pressure of time I had to give up the intended journey, and requested Mr. James Teit, who is thoroughly familiar with the Ntlakya'pamuq, to try to collect as much information as possible on the tribe. He visited Nicola Valley early in March 1895, and reports the results of his work as follows:—

¹ *Trans. Royal Soc. Canada*, vol. ix. 1891, sect. ii. p. 23.

but a portion
remain stable,
re than twice
the following

4 dead children.
22 "
17 "
20 "
9 "

conditions are
considerably less
at a very slight
ā'pamuq would

among the Kwa-
paped in decades.

60 and more.
4-9

women who are
e mature about
the time when
ria for purposes
influential men
tice, and we see
en. The young
en may hope to
had. But the
st rigid suppres-
l continued to a
ases which have

HEY.

obia' Dr. G. M.
ed to inhabit the
es on the history
rmation obtained
pops, who has an
As parts of this
and as it seemed
on this tribe, I
ons. Owing to
nd requested Mr.
pamuq, to try to
e visited Nicola
of his work as

'I saw the three old men who are said to know the old Stūwī'hamuq language, which was formerly spoken in Nicola Valley, and found that they only remembered a few words of what they had heard from their fathers. One of them could only give me five or six words, another one twelve, and another one twenty. As many of these words were the same, I only obtained twenty distinct words and three phrases. I also learned two place-names used by them which I think are probably Tinnēh. A few of the words which I obtained are not on the lists of Dr. Dawson and Mr. McKay. One Indian, who also knows some words of the language, is living at present in Similkameen; therefore I was unable to see him. It is unfortunate that the work of collecting the remains of the language was not undertaken a few years sooner. An old woman who was half Stūwī'hamuq died in Nicola only five years ago. She was the last person who could talk the language properly. The three Indians whom I saw are only one quarter Stūwī'hamuq blood; each of them is old and white-haired, and I should judge over seventy years of age. One of them said he remembered that when he was a boy his grandfather (who was then a very old man and hardly able to walk) pointed out to him the spot on the Nicola a little below the lake where he (the old man) was born, and also told him that his people had always inhabited that region. This old man must have been born in Nicola at least 120 years ago, and it seems that he had no knowledge of the origin of his tribe.

'Another old man whom I saw was taken when a lad, by his father, all over the boundaries of the tribal territory in order to impress upon him the different landmarks which constituted at that time the tribal boundaries. One of the old men named his ancestors for four generations back, saying that at that time the whole tribe lived in three camps or subterranean lodges, and that there were not very many people in each (probably from forty to fifty souls), and that they all wintered along Nicola River below the lake, and in close proximity to each other. They also had two fortified houses in which they took refuge when threatened by war parties of other tribes. The man mentioned war parties of Okanagan, Ntlakyā'pamuq, and Shuswap, who attacked their fortifications unsuccessfully. These events happened three or four generations before his time.

'Three generations ago the tribe had some admixture of Okanagan and Ntlakyā'pamuq blood. Some of them had wives from among their tribes, and the latter took wives from among them. They claim that their tribe never went on war expeditions into the territories of other tribes, and they say, with pride, that their country is the only one in this region where the white men's blood has never been shed. They have a tradition that at one time their tribe was numerous and that their southern boundary extended to Keremeos, on the Lower Similkameen River. They have no tradition regarding a foreign origin, and were quite indignant when I mentioned to them Mr. McKay's theory of their being descended from a war party of Chilcotin. They said that when young they had heard the old people of the tribe telling mythological stories, but these were just the same as those current among the Okanagan and Ntlakyā'pamuq. At my request they told me some of these stories which had been told to them by their grandfathers, and I recognised them as identical with those which I had heard at Spence's Bridge, and which are current in slightly different versions among the interior Salish. I questioned them extensively regarding the customs of their ancestors, and found that these corresponded

exactly to those of the Ntlakyā'pamuq. Their weapons were also exactly the same. Their personal names, so far back as they can trace them, are also Ntlakyā'pamuq. The oldest personal name that they could give me was that of a man of note among them called Tsūqkokwa's. This is the only name that I do not recognise as Ntlakyā'pamuq. They said that the pure Stūwī'namuq whom they had seen were of about the same height as the Ntlakyā'pamuq and Okanagan, but generally heavier in build. They were also of the same complexion. Their features were slightly different, but they could not explain wherein the difference consisted. They told me the names by which the tribe was known among themselves, and also by neighbouring tribes. These names have all the Salish suffix *-muq*, meaning *people*. These names are Sei'leqamuq (said to mean people of the high country); Smilē'kamuq and Stūwī'namuq. The last is the name by which they are principally known to the Ntlakyā'pamuq, who have from time immemorial called the upper Nicola country Stūwī'n. The Indians at Spence's Bridge say that this is probably one of the many forms of their word meaning "creek," such as Cawa'uq, Teawa'q, Teūwa'uq, Stewauq. Sei'leqamuq is decidedly a Ntlakyā'pamuq word. Smilē'kamuq is probably connected with the place-name Smilēkami'n or Smilēkami'nūq, of which Similkameen is a corruption. They say that about sixty years ago the winter habitations of the Ntlakyā'pamuq extended up the Nicola River only some seventeen miles. The country above this point was recognised as belonging to the Stūwī'namuq. The Ntlakyā'pamuq called their division which lived along the Lower Nicola River, Teawa'qamuq, but the Stūwī'namuq called them Nkamte'i'nemuq, and looked upon them as a part of the division extending from Thompson Siding to Ashcroft. The Teawa'qamuq, or Cawa'qamuq, used in former days only to go into the Stūwī'n country in the summer and fall of the year to hunt. (The reason that the Cawa'qamuq at that time inhabited principally the lower part of Nicola River was no doubt on account of the superior fishing facilities.) When the number of horses of the Cawa'qamuq and Nkamte'i'nemuq began to increase, many of these people moved up to the Stūwī'n country on account of its good grazing, and settled there about fifteen years before the advent of the white miners in 1858. After the country was partly settled by the whites more Cawa'qamuq and Nkamte'i'nemuq, many Uta'mk't, and some Ntlakyāpamuq'ō'e and Okanagan settled in the Stūwī'n country, being attracted by its farming facilities. Shortly before the arrival of the whites the Okanagan commenced to make permanent settlements in the neighbourhood of Douglas Lake on account of the good grazing in that region. The Nicola Tinnēh, who were already mixed with these tribes, never offered any opposition to their settlement. At the time of the advent of the whites (1858) the recognised chief of the Nicola country was Newisiskīn, a Cawa'qamuq, born within seven miles of Spence's Bridge. The Ntlakyā'pamuq soon became the prevailing language of that district. It seems that at least for several generations back the Stūwī'namuq simply acted on the defensive. The Ntlakyā'pamuq and Okanagan made what use they liked of the Stūwī'n country, hunting in it and passing through it when they desired. The Okanagan always went by that route when going to trade with the Nkamte'i'nemuq. Parties of Shuswap, Okanagan, and Ntlakyā'pamuq on war expeditions against each other passed through the Stūwī'n country unmolested.

'One of the old men whom I saw, named Teuiē'ska or Sē'sūluskin, is

re also exactly
e them, are also
d give me was
his is the only
l that the pure
e height as the
h build. They
ghtly different,
ed. They told
ves, and also by
h suffix -muq,
mean people of
ast is the name
muq, who have
Stûwi'n. The
ne of the many
wa'q, Teûwa uq,
l. Smîlê'kamuq
Smîlêkaminûq,
out sixty years
d up the Nicola
this point was
yâ'pamuq called
, Teawa'qamuq,
oked upon them
ing to Ashcroft.
ly to go into the
to hunt. (The
ipally the lower
superior fishing
awa'qamuq and
moved up to the
tled there about
858. After the
awa'qamuq and
âpamuq'ô'e and
d by its farming
Okanagan coun-
hood of Douglas
e Nicola Tinnéh,
any opposition to
hites (1858) the
a, a Cawa'qamuq,
lakyâ'pamuq soon
ems that at least
ly acted on the
at use they liked
through it when
ate when going to
, Okanagan, and
assed through the
or Sê'sûluskîn, is

the first person of the Ntlakyâ'pamuq whom I have seen tattooed on the body. He is one quarter Stûwi'hamuq, one quarter Okanagan, and half Nkamteci'nemuq. He said that formerly the Stûwi'hamuq were occasionally tattooed on the body, as were also some of the Nkamteci'nemuq.'

So far Mr. Teit's report. It may be mentioned in connection with these facts that the Ntlakyâ'pamuq, near the mouth of Nicola Valley, are the only people who use round lodges in summer, not square lodges, such as I described in my report on the Shuswap. This custom may be due to contact with the Tinnéh tribe, or to that of the Okanagan, who are said to use round lodges.

From what we know about Indian life, Mr. McKay's theory that the Stûwi'hamuq are descendants of a Chilcotin war party, which was hemmed in by the Ntlakyâ'pamuq, seems very unlikely, and Mr. Teit's data prove beyond a doubt that the people have lived in the Similkameen and Nicola regions for a long time. I do not doubt that they must be considered the most northern of the isolated bands of Tinnéh origin which are found all along the Pacific coast.

The following is a list of all the words belonging to the language which have been collected. The names of the collectors are indicated by initials, M. standing for Mr. J. W. McKay, D. for Dr. George M. Dawson, and T. for Mr. James Teit. Mr. Teit adopted the same system of spelling that I use; where more words than one are given under his name they were obtained from different individuals.

1. *T-hach*, M., man.
2. *Tet'-hut*, D., man.
Thate, T., man.
3. *Nootl*, D., man.
4. *Tsik-hi*, M.; *tse-a-kai'*, D.; *tsekue'*, T., woman.
5. *Sasa*, M.; *sus*, D.; *sas*, T., bear (D., grizzly bear).
6. *Si-si-aney*, M., ram of mountain sheep or big horn.
Sis-ya-nê', D., big deer of old; either wapiti or cariboo.
Sisié'ni, T., ewe of mountain sheep.
Sesia'ni, T., elk.
(*estahi'tz*, T., elk, probably a corruption of *isteha'tz*, elk in Ntlakyâ'pamuq. J. Teit).
7. *T-pae* or *ti-pae*, M.; *tpi*, T., ewe of mountain sheep or big horn.
Ti-pi, D., mountain sheep.
8. *Tit-pin*, T., ram of mountain sheep.
9. *Sa-pie*, M., trout; *si-pai'*, D.; *sipai'i*, T., lake trout.
10. *Hûhûltu'tâi*, T., a small fish called *hûlu'liak* by the Ntlakyâ'pamuq.
11. *Taki'nktein*, T., a small fish called *eyi'nik* by the Ntlakyâ'pamuq.
12. *Zûlke'ke*, T., ground hog.
13. *Taho*, T., buck of deer.
14. *Ploht-ho*, M., snake; *klos-ho'*, D.; *stlosno'*, T., rattlesnake.
15. *Tin-ih*, M.; *ti'neu*, *ti'nuq*, T., bear-berry (Aretostaphylos).
16. *Tego'tztz*, T., soap-berry.
17. *Nott-ta-hat'-se*, D.; *nottqa'tzi*, T.; *qtlona'zi*, T., wild currant.
18. *Ta-ta-ney*, M.; *têt-ta-â-nê'*, D.; *ta-a'ni*, T., knife.
19. *Sa-te-tsa-ê*, M.; *sôtitsai'i*, T., spoon made of mountain-sheep horn.
Sit-ê-tshî-i', D., spoon.
20. *Ska-kil-ih-kane*, M., rush mat.
21. *Ke*, T., bow and arrow.
22. *Naltsi'tae*, T., arrow-head.
23. *Thutl*, *thutl*, T., packing line.
24. *Sa-pe*, M., one.
25. *Tun-ih*, M., two.
26. *Tlohl*, M., three.
27. *Na-hla-li-a*, M., four.

28. *E-na-hl̄*, M., five.
29. *Hite-na-ke*, M., six.
30. *Ne-shote*, M., seven
31. *K-pae*, M., eight.
32. *Sas*, M., nine.
33. *Ti-li-tsa-in*, M., give me the spoon, or bring me the spoon.
34. *N-shote*, M., give it to me.
Etl-teot, T., I may give you.
35. *Pin-a-l̄-ŋ-ŋ-ŋ-tz*, D., look out ! or take care.
36. *A'ee ge*, T., come here, child !
37. *Apin tleqi i en qān*, T., exact meaning unknown, but used like the swearing of the whites.
38. *TastHezu'li*, a place-name.
39. *Tizzi'la*, a place-name.

These words show that the dialect was much more closely related to the Tinnah languages of British Columbia than to those farther south, although it would seem to have differed from the former also considerably. A comparison of vocabularies, which shows the relationships of these dialects, will be found in the linguistic part of this report.

III. THE TS'ETS'Ā'UT.

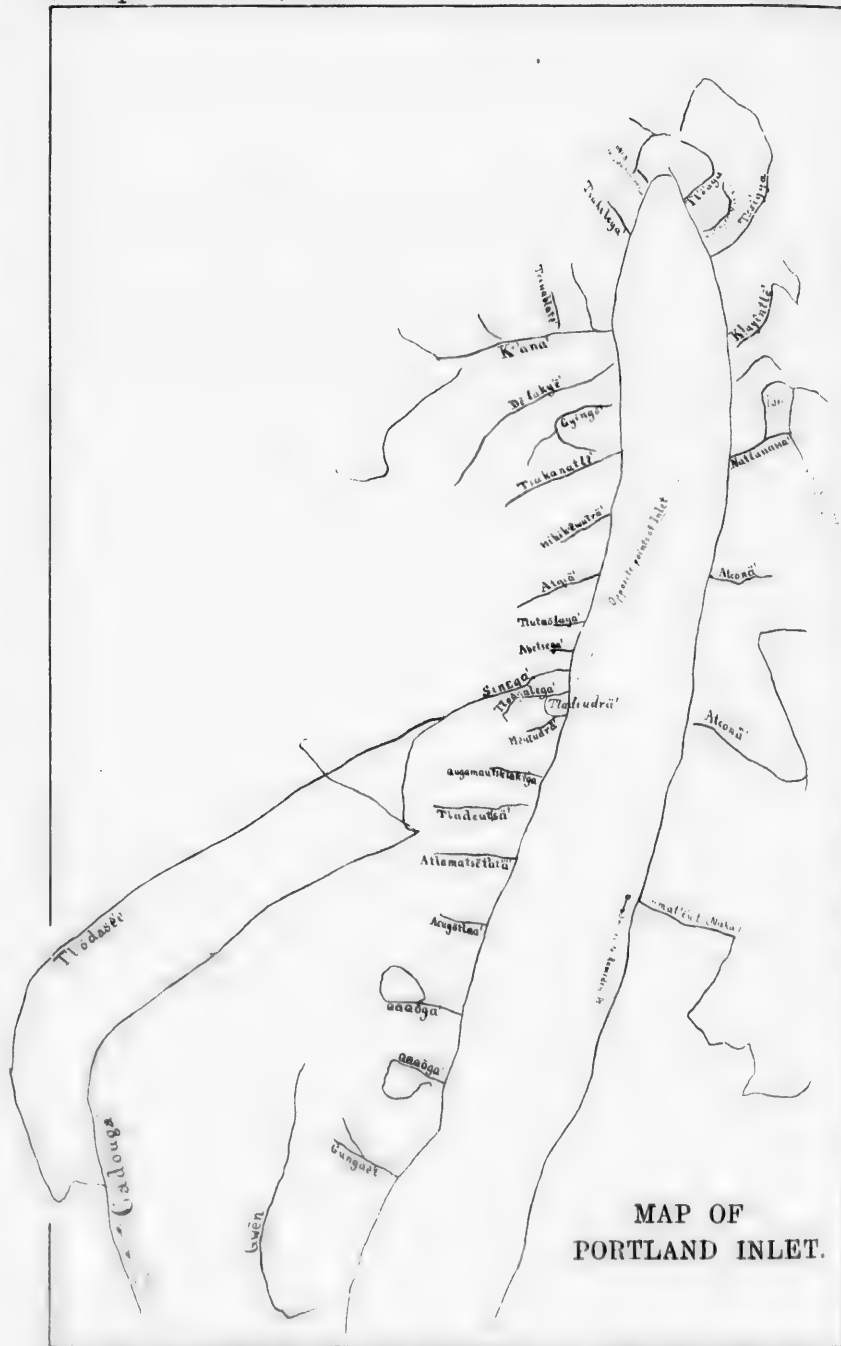
On my second journey to British Columbia I made an effort to find members of a tribe that was reported as living on Portland Inlet, and as being slaves of 'Chief Mountain,' the chief of a Niska'a' clan. I received reports of this tribe from Mr. Duncan, and some additional data were learned from the Tsimshian. On my last trip I visited the village Kinkolith, at the mouth of Nass River, whither the tribe was said to resort at certain seasons of the year. There I found a boy named Jonathan and one young man named Timothy ; later on, after a prolonged search, I found an elderly man, Levi. From these three men the following information was obtained. Levi was the only one who spoke the language well, while the two young men used almost exclusively Niska'a' in their conversations. All the ethnological and historical data were given by Levi. The language proved, as I anticipated, to be a Tinnah dialect. The tribe is called by the Niska'a' and by the Tsimshian Ts'ets'ā'ut—those of the interior. By this name are designated all the Tinnah tribes of the interior. It does not refer to any one tribe exclusively, and corresponds to the Tlingit name Gunana'. The number of members of the tribe is reduced at present to about twelve, and only two of these continue to speak their own language correctly. The name of the tribe is forgotten, and we must therefore continue to designate them as Ts'ets'ā'ut. According to the testimony of the Niska'a' of the Ts'ets'ā'ut, the latter form a tribe different from the Laqu'yip (of the prairie), who have their principal villages on the head waters of the Stikeen River. They are called Naqkyina (on the other side) by the Ts'ets'ā'ut. Their town is called Gunaqā'. Levi named three closely related tribes whose languages are different though mutually intelligible: the Tahltan (Ta'tltan), of Stikeen and Iskoot Rivers ; the Laqu'yip, of Naqkyina, of the head waters of the Stikeen ; and the Ts'ets'ā'ut. The home of the last named tribe extended from a little north of Teūna (Chunah) River, in the extreme north-eastern corner of Behm Channel eastward to Observatory Inlet, northward to the watershed of Iskoot River. About sixty years ago this tribe numbered about five hundred souls, but they were exterminated by continued attacks of the Sā'nak.

on.

sed like the swearing

closely related to
those farther south,
also considerably
relationships of these
rt.

an effort to find
eland Inlet, and as
clan. I received
ditional data were
visited the villar
e was said to re-
y named Jona
prolonged sea-
men the follow-
ne who spoke the
ost exclusively
and historical
ated, to be a Tsim-
by the Tsimshian
designated all the
ny one tribe exclu-
'a'. The number
velve, and only two
rectly. The natu-
e continue to desig-
y of the Niska' and
the Laq'uyi'p (= e-
head waters of the
other side) by the
named three close-
mutually intelligible
s; the Laq'uyi'p of
the Ts'ets'a'ut. The
e north of Tei'na
of Behm Channe
watershed of Isko
about five hundre
s of the Sa'nak'ou



Illustrating the Tenth Report on the North-Western Tribes of Canada.

the Tlingit tribe of Boca de Quadra and of the Laq'uyí'p. The present generation confine their wanderings to the surroundings of Portland Inlet, north of Port Ramsden. At my request Levi drew a map of this region, which is here reproduced. It will be seen that all the rivers of the inlet have Tinnéh names. Levi gave me also the Tinnéh names of the rivers emptying into Behm Channel and of several places in Observatory Inlet.

Geographical Names in the Ts'ets'ā'ut Territory (see map).

Ky'etsō'ga; Observatory Inlet.
 Ky'etsō'ga; Hastings Arm. Nisk'a': Kcuwa'n.
 Māātrēga; Alice Arm.
 K'aqanē'; Larcom Island.
 Atconā' (1); Nisk'a': Gunskey'ik.
 Atconā' (2); „ Anukepē'tk.
 Natlanāna' (=canoe); Nisk'a': Kcā'u.
 K'layintlē'; Nisk'a': hmā'ōtlk.
 Tsi'gya; Nisk'a': Guncī'ēn.
 Tl'ō'aga; Nisk'a': hio'dzi.
 Tsakilega'; Nisk'a': Gunaqnē't.
 K'anā'; Nisk'a': Sk'amgō'ns.
 Dēlaky'ē' (=dog salmon); Nisk'a': Laqnk'alā'n.
 Tsakanatlē'; Nisk'a': Gyidziks'a's.
 nihik'ēwutrā'; Nisk'a': Angulikeō'otk.
 Atqiā'; Nisk'a': Angutlqā'k'sk.
 Tlūtaōlaga' (=salmon); Nisk'a': Gyīnmē'lik'st.
 Abetsēga' (=Mountain Goat Creek); Nisk'a': Anlē'k's.
 Sinega'; Nisk'a': hmā'enik'tl.
 Tloāgalega'; Nisk'a': Gyill'ā'meq.
 Tladēudrā'; Nisk'a': Wia'k's (English: Tombstone Bay).
 qugamautsielak'ē'ga; Nisk'a': Wilduwa'ntlgya'.
 Tladēutsā'; Nisk'a': Tluguyitlk'ā'mtl.
 Atlamatsēt'at'a'; Nisk'a': Qā'dik'e.
 Gwēn; Nisk'a': hgōnt.
 Cadōuga'; Nisk'a': Cadōuga'.

Names of Rivers emptying in Bay of Quadra, or Nekyehūljā'.

Atqatqaga'.
 Nugufega'.
 Tsētliega'.
 Teū'naq; Chunah River.

Among these names two are worth a remark. Atlamatsēt'at'a', on the west side of Portland Inlet, is so called on account of a localised tradition. It is said that in the beginning there were no mountain-goats. One day a man named Atlama went to the mountains and found a cave full of goats. He hid at the entrance of the cave and killed the goats when they came out, one after the other. He caught the kids, tied their legs, and carried them down to the camp. Therefore the place was called Atlamatsēt'at'a'. The second place which is worth remarking is Cadōuga', because it has the same name as Nisk'a' which shows that the Tinnéh name was adopted by the ~~people~~ Nisk'a'.

When the members of the tribe were reduced in numbers the Nisk'a' began to claim Portland Inlet as their territory, and 'Chief Mountain' monopolised the right of trading with the Ts'ets'a'ut. Since that time they have been called his slaves.

These reports on the former location of the tribe are corroborated by the fact that all their legends are localised either on Teū naq River, which seems to have been their principal haunt, or on Portland Inlet, and on rivers and lakes of the peninsula between Portland Inlet and Behm Channel.

I learned the following particulars in regard to their history.

According to the statements of Levi, they lived in olden times much more frequently on Behm Channel than on Portland Inlet. At that time they were on friendly terms with the Sā'nak'oan (Ssanghakon, Krause) of Boca de Quadra. The chief of the latter was their friend, and some of their number were in the habit of staying with the Sā'nak'oan. After his death the Sā'nak'oan intended to kill the Ts'ets'a'ut, and to enslave the women and children. The chief's nephews, however, informed them of this plan, and from that time they hunted more frequently around Portland Inlet. They then fell in, for the first time, with the Nisk'a' on Portland Inlet. The names of men whom they met there were K'ayaq, Gunā'q, and Gyitqō'n.

Three friends of the deceased chief of the Sā'nak'oan, whose names were Walk'en, Tlaqō'ns, and Qutk'a', resolved to pursue the Ts'ets'a'ut, whose chief at that time was K'acgu'ta', a member of the Laqski'yek clan. Tlaqō'ns and Qutk'a' were brothers, and the last-named had married a K'utlk'oan woman. This tribe lived, at that time, on Revilla Gigedo Island, while nowadays they have joined the Sta'kink'oan. They are called by the Nisk'a' Gyitqā'el. These three men followed the Ts'ets'a'ut. They found that they had made friends with the Nisk'a', and that most of them were hunting south of Nass River, near the village opposite Greenville, while some had gone to Observatory Inlet. They did not dare to follow them into the country of the Nisk'a', and turned back. They returned to Boca de Quadra, and went to a place which was owned by K'asā'qs, the chief of an eagle clan of the Sā'nak'oan. They call this place K'a'itl, while the Ts'ets'a'ut call the river which empties there Atqatqaga'. This is the most southern of three rivers emptying in Quadra Bay. The middle one is called Nugufega', the most northern one Tsétliega' in the Ts'ets'a'ut language. In the following autumn the Ts'ets'a'ut returned to the mouth of Atqatqaga', and fell in with the Sā'nak'oan. The latter invited them to come down to the place where their fish was stored, which they proposed to exchange for skins. There were three Laqski'yek men, three Laqkyebō' women, and fourteen children in the party. They had three guns among them. Levi's uncle was one of the party. It was raining, and as soon as they reached the camp the Ts'ets'a'ut placed their guns over the fire in order to dry them. The Sā'nak'oan had loaded their guns outside. They had two long guns and one short one. A Tongass woman, who was married to one of the Sā'nak'oan, was friendly to the Ts'ets'a'ut, as were all the members of her tribe, and she cried all the time in order to warn them, but they did not understand what she meant. In order to provoke a quarrel Tlaqō'ns, who owned the short gun, asked one of the Ts'ets'a'ut if he thought that the gun would kill a bear. The Ts'ets'a'ut thought it was too small. Then Tlaqō'ns took the guns of the Ts'ets'a'ut, which were small-bore, from the drying frame, and, under pretence of examining them, placed them out

of their reach. He said that his gun was wide-bore, and that he had only cut off the barrel in order to make it handier. He pretended to take offence at the deprecatory remarks of the Ts'ets'ā'ut and shot him. At this signal his companions shot the other men. They took the bodies and the women and children in their canoe, and threw the former into the sea. When the Ts'ets'ā'ut heard of what had happened, they went to Nass River in order to attack the Sā'nak'oan when they should come to buy olachen grease. But they did not dare to come for several years. From that time the Ts'ets'ā'ut made Portland Inlet their headquarters. These events happened before Levi was born, *i.e.*, about sixty years ago. But the attacks of the Sā'nak'oan continued afterwards. Whenever one of their chiefs died, they tried to kill some of the Ts'ets'ā'ut, and to obtain slaves from among their number.

At one time an uncle of Levi had run away with a girl whose parents refused to give her to him in marriage. At Halibut Bay he met a Nisk'a', whom he requested to take him across the inlet. The Nisk'a', who wanted to buy marmot skins, proposed to go back to Nass River to fetch powder and lead, and was going to return in order to take the couple across the inlet. In return the Ts'ets'ā'ut was to catch for him a certain number of marmots. While he was away a canoe carrying three Nisk'a' men (Gyitqo'n, a Laqski'yek; Nēsqa'k't, a Gyispawaduwe'da; and Sīnatlō'ōt, a K'anha'da) landed. The Ts'ets'ā'ut owed some marmot skins to the first of these men, who demanded immediate payment. The Ts'ets'ā'ut explained that he had no skins, because he had run away with a girl, but Gyitqo'n did not listen. He got angry, and killed the Ts'ets'ā'ut with his axe. The woman ran away, but Nēsqa'k't shot and killed her. Then they buried them at the foot of a tree. After a while the first Nisk'a' returned, but did not find the couple. When he saw their dog running about, he thought that the three men whom he had met might have killed them. He went to Tombstone Bay, where many Ts'ets'ā'ut were encamped, in order to catch salmon. He took the dog along, and told them what had happened. Then all those who were encamped at the Bay, about fifty in number, struck camp because they became afraid of the Nisk'a'. They were more willing to brave the attacks of the Sā'nak'oan than those of the more numerous Nisk'a'.

One of the Sā'nak'oan had a Ts'ets'ā'ut woman for his wife. They fell in with him, and he took them to the large island K'a'tik' (Tlingit name; probably Revilla Gigedo Island). After some time the K'u'tlk'oan learned of their whereabouts and searched for them. When they had found them they wanted to remove them to the mainland. The Ts'ets'ā'ut agreed to go, but during the night, while all were asleep, the K'u'tlk'oan produced their guns which they had hidden, and shot all the men and women. One of the Ts'ets'ā'ut, who had a gun, was killed while he was aiming at one of their aggressors. They put the children into their canoe as slaves, but as there were too many of them they threw eight of their number into the sea. Thirty were enslaved.

Another quarrel took place about forty-five years ago. One winter, about the month of February, Levi's father and several other men went from Portland Inlet to Qā'itl, which is a river near Te'naq. They pitched their camp near the mouth of the river. After some time one man and his wife saw a canoe coming. When the canoe landed they saw that several Sā'nak'oan were in it. The latter gave them tobacco, powder, and balls, and inquired for their camp. After they had learned where it

was, they promised to call there on the following day. The Sa'nak'oan camped in the entrance of a small bay. On the following morning they went to the camp of the Ts'ets'a'ut, and after having eaten they began to trade, the Sa'nak'oan buying skins for tobacco, powder, lead, and shirts. On the following morning two Sa'nak'oan brothers, Kratsé'el and Yaqté'it, remarked that there were many crows on the beach, and took up their guns in order to shoot them. After a short while they re-entered the hut, one of them holding his gun under his blanket. He aimed at one of the Ts'ets'a'ut, hiding his gun under his blanket all the time, and shot him. At this signal his brother shot another man, and a third of the Sa'nak'oan, whose names were K'ahoté' and Nagratsé' (Fox), shot a third man. The others drew their daggers, and killed all the Ts'ets'a'ut men. They enslaved the women and children, and took them to Revilla Gigedo Island, where they stayed the rest of the winter. In the spring of the year Levi's mother made good her escape, taking her two children along. She made a bark canoe, crossed Behm Channel, and after two months of hardships they reached Tombstone Bay, on Portland Inlet, where they met the Ts'ets'a'ut who had stayed on the inlet. 'Eve,' who is old now, was sold at that time to the Skêtk'oan, from whom she escaped.

At another time, while Levi was a boy, the Ts'ets'a'ut had a war with the Laq'uyi'p. At that time his sister had just married a man named Negusts'ikatsa'. They were hunting north of the upper reaches of Nass River. When they returned to Portland Inlet a party of Laq'uyi'p came there accompanying a Ts'ets'a'ut hunter. The Ts'ets'a'ut had one gun among them, and were about to shoot at the Laq'uyi'p when their countryman asked them to desist, as the Laq'uyi'p had come to make peace and to pay for those who had been killed in previous wars. The Ts'ets'a'ut allowed them to approach and gave them to eat. When they were about to go to bed they showed the Laq'uyi'p their gun. One of the latter kept it, and in the ensuing quarrel he shot two of the Ts'ets'a'ut. Levi added here that in olden times his countrymen were 'as stupid as ghosts.'

These historical data define their territory fairly well.¹

¹ Mr. J. W. McKay on hearing indirectly of my researches at Portland Inlet published in a journal which commands some authority in Canada (*The Province*, Victoria, B.C., December 29, 1894) a correction before any of my observations were made public. He says that these Indians 'belong to the Kunānā, a tribe which inhabits the lower Stikine Valley, and whose headquarters are at Tahltan, on the first north fork of the Stikine River. About forty years ago three or four families of these Indians were hunting in the neighbourhood of the head waters of the Skoot (Iskoot), a large tributary of the Stikine. Game was scarce, the prospect of a hard winter stared them in the face; they accordingly decided to make for Chunah, on the seacoast, at the head of Behm Inlet. They took a wrong direction and struck the coast on the west shore of Portland Channel. They were then discovered by one of the headmen of the Naas tribe, who arranged with them to protect them from molestation provided that they sold all the product of their fur hunts to him at his price. Having no alternative but to accept his proposition, or be sold into slavery, they agreed to be his vassals, and have remained as such to his heirs and assigns to this day. They are not the remnants of a tribe; they belong to a tribe which still maintains its normal strength in the valley of the Stikine.'

In a letter addressed to Dr. G. M. Dawson and dated Victoria, B.C., January 19, 1895, Mr. McKay makes the following additional statement:

'I have your letter of the 6th instant touching Dr. Boas's discovery of a remnant of a tribe of Indians on Portland Canal. The facts of the case are substantially as stated in *The Province*, and were made known to me incidentally during my sojourn in Cassiar.

'I was one day encamped near the Tahltan River when some Naas Indians came

In regard to the personal appearance of the Ts'ets'a'ut I refer to the measurements contained in the first part of this report. The individuals whom I saw were short, of light colour, with broad and flat faces and low noses. Their mouths were full. Their general appearance is very much like that of the Nisk'a'.

They have no fixed villages, but make a camp wherever they intend to hunt. Their staple food is porcupine, marmot, mountain-goat, and bear. The skins of these animals supply the material for clothing. In summer they go down the rivers of Portland Inlet to catch salmon, which they dry for winter use.

At present they wear white man's clothing, but according to Levi's descriptions their old style clothing corresponded to that of other Tinnah tribes. Both sexes wore high boots (kūê) made of marmot skins and reaching to the thighs, and pants (eklayê) made of curried skins. Men wore a leather jacket (ayā'n) cut like a shirt and reaching to the middle of the thigh. In winter they wore a jacket of marmot skins with mittens attached (agōtsqa') and threw a robe of birdskins (tss'a) over their shoulders. In travelling they tied the robe around their waists by means of a belt (sê). Women wore a short coat, which was tied around the waist (atlaç'), and a jacket (tl'a), both being made of mountain-goat skins. The skin of the belly of the beaver was also used for the manufacture of clothing. In recent times both sexes have adopted the use of the moccasin

into my camp and complained that Na-nok, the chief of the Tahltan Ku-nā-nās, would not let them proceed to Dease Lake unless they paid him something for passing through his country. I had with me at the time as servant one Jim, a Ku-nā-nā Indian, who explained the cause of Na-nok's conduct by detailing the statement published in *The Province*. I made Na-nok understand that he must not make reprisals; that his tribesmen at Portland Inlet had full liberty to return to their own country if they wished; that his jurisdiction did not extend to levying tolls on strangers passing through the country, in which he himself was only a sojourner, as he had done nothing to improve it; and that he must let the Naas Indians pass, which he accordingly did. This happened about twenty years ago.

As to the original inhabitants of Portland Inlet the most ancient of which we have any account is the Tongas band of the Tlinkeet tribe. The wintering villages of this band at one time extended as far south as Māh-lit-hāh-lā; they were driven northward by two (Metlakathla) hordes of Tsimshians (men of the river) who descended from the interior by the valleys of the Skeena and Naas, took possession of the Tsimshian Peninsula, and settled thereon. The Tongas, being forced to relinquish their rights therein, retired to the coast and islands immediately north of the entrance to Portland Canal. If there were any inhabitants in Portland Inlet when the Tlinkeets first reached that locality, they would have been exterminated or otherwise absorbed by the latter race before the Tsimshian race made its appearance on the scene of action. The Tongas would be the most likely Indians to give what information may be obtainable respecting any race more ancient than themselves, which may have existed in the locality under consideration. The Tlinkeets of Cape Fox might also be able to throw some light on the subject.

You are aware that the Ku-nā-nās of the Stikine Valley are closely allied to the Tlinkeets of that section, i.e. the Skat-kwan. The Skat-kwan are closely allied to the Tongas, and these facts may account for the Naas Indians' moderate treatment of the little band of Ku-nā-nās who unfortunately tumbled, as it were, into the lands of the stranger, and stranger meant enemy in the days and in the country of which I am writing. Had they reached *Chunah*, at the head of the Behm Canal, the point for which they were making, they would have been amongst their friends the Skat-kwan Tlinkeets.

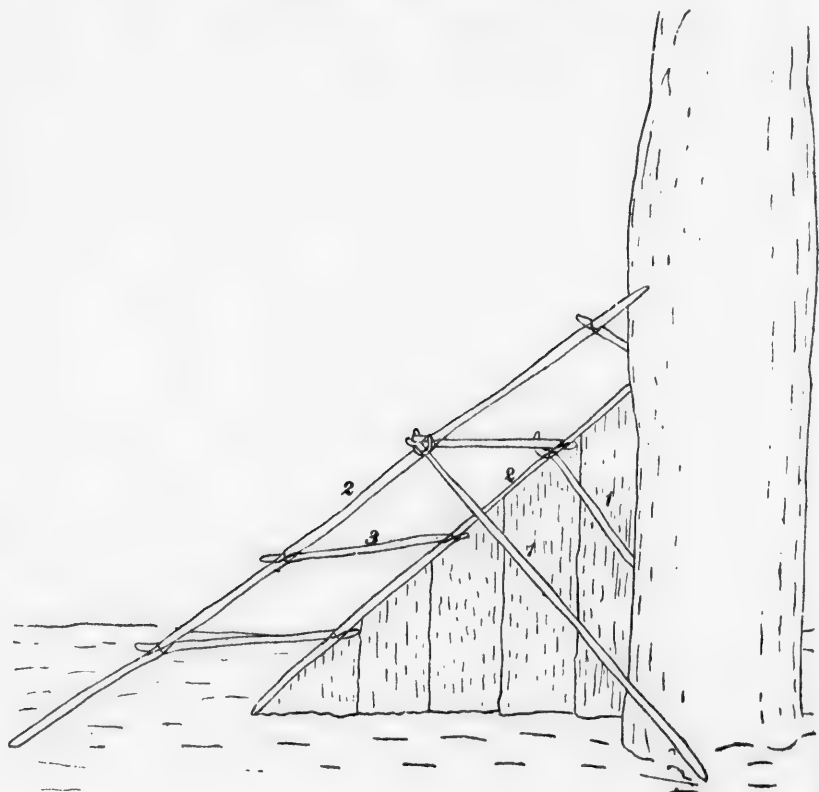
There is no traditional evidence of the invasion of the Tsimshian tribe to which Mr. McKay refers, although it is probable that the Tsimshian were originally an inland people. The statements collected by me show also that Mr. McKay is mistaken in regard to his notions of the distribution of tribes in Southern Alaska.

(kêikatsse) in place of the high boot. It is made of mountain-goat hide. The hair was tied in a knot behind the head, while the Tatltan (Tahl-tan) shaved their heads.

They wore ear-ornaments made of the wool of the mountain goat. These were attached to holes made in the lobe and in the helix. The nose was also perforated, and ornaments made of haliotis shells or of coins were suspended from the septum. The clothing was embroidered with porcupine quills. Before the introduction of glass beads they made beads of bone. Girls wore hats (see p. 45).

The houses of the Ts'ets'a'ut are made of bark, and of a very temporary

FIG. 1.—Hut of the Ts'ets'a'ut.



character. They clear a space at the foot of a large tree and place a forked pole, about seven feet long (at'anaa', fig. 1, (1)) on each side of the tree, from about six to eight feet apart. These poles support two slanting poles (en', fig. 1 (2)) about fourteen feet in length, which are connected by four cross poles (têtlatsaa', fig. 1 (3)). The slanting roof and both sides are covered with bark, while the end next to the tree remains open. Sometimes one side next to the tree is closed; the other serves as a doorway. The fireplace (khô da tla) is at the foot of the tree; the smoke escapes at the open top next to the trunk of the tree. The ground is covered with brushes, and

in-goat hide.
an (Tahl-tan)

mountain goat.
e helix. The
shells or of
embroidered
ds they made

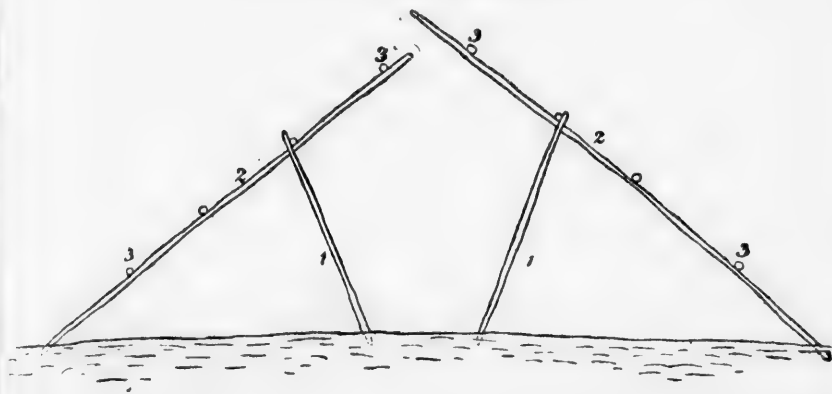
ry temporary

the bed is spread at the low end of the hut, the head end being at the side remote from the tree. The structure is lashed together.

When two families desire to inhabit one house, two of these structures are joined together, so that they stand end to end, and one is built a little higher than the other (fig. 2). Thus the roof of one side overlaps that of the other and prevents the entrance of rain. This house has a door on each vertical side. It is also built close to the butt of a tree as a protection against snow and rain, the trunk of the tree being close to one of the vertical sides. When the tribe moves to another camp the houses are taken apart and the poles are tied together and to a tree. When the party returns to the same place they untie the bundle and use the same poles.

In winter the poles are tied more strongly, and very stout supports are selected. When the snowfall is very deep the doors are blocked up and the exit is through the roof. It would seem very likely that this winter house may be the primitive form out of which the subterranean

FIG. 2.—Double hut of the Ts'ets'a'ut.



lodge of the interior of British Columbia may have developed. The advantage of covering the walls with dirt instead of waiting for a snowfall, to ensure protection against winds and cold, would become easily apparent, and then the ground plan of the two houses would become very much alike. The advantages of the bilateral arrangement would also disappear when the houses were built underground instead of overground. I would remark at this place that the supports of the subterranean lodge are slanting outward, not vertical, as indicated on page 81 of the Sixth Report of the Committee, and that Dr. Dawson's figure ('Transactions of the Royal Society of Canada,' 1893, ii.) renders the plan correctly.

place a forked
of the tree, from
ting poles (eni,
ed by four cross
are covered with
ometimes one side

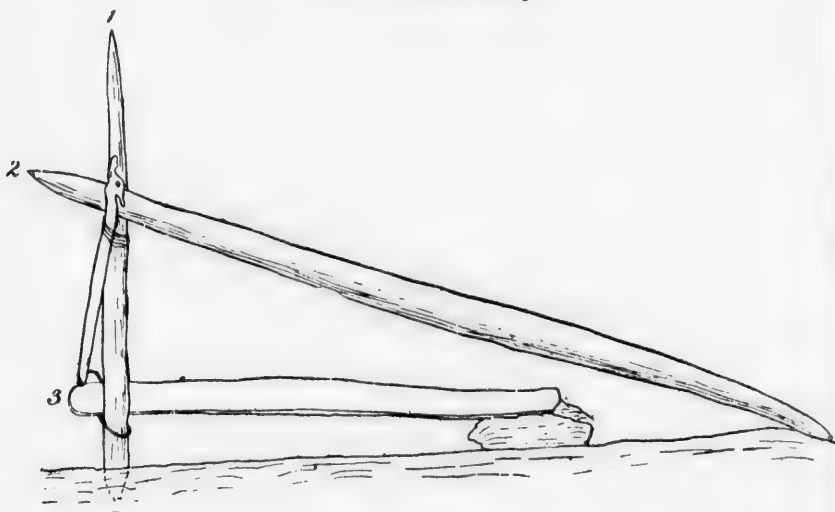
The fireplace
at the open top
ch brushes, and

The bed is covered with mats made of cedar-bark. Quilts or blankets are made of the skins of goats, bear, and marmot. Baskets are used for cooking and for carrying water, berries, and other kinds of food. They are made of spruce roots or of bark. Spoons are made of bark or of mountain-goat horn. Axes and adzes were made of bone or horn.

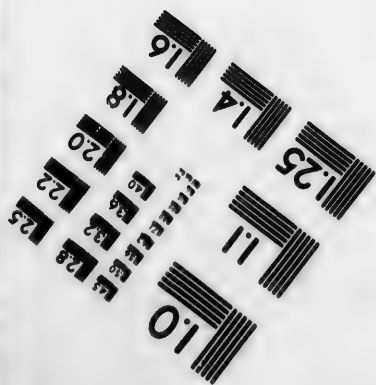
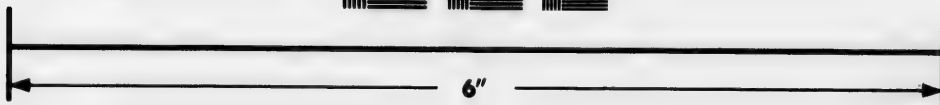
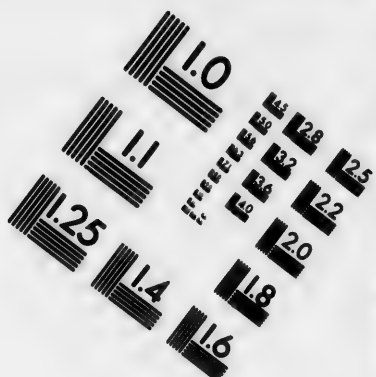
Fire was made either by means of the firedrill or with a strike-a-light. The stone for the latter is found in Tombstone Bay, but the description of the kind of stone was too indefinite for the purpose of identification.

The firedrill is turned by means of a bow : the upper end is held in a piece of bark, while the lower ends turns in a slit of a piece of wood. Dry rotten wood is used for tinder. The sinew-backed bow was made of yew wood. There was a stud on the inner side, which served to keep the string from the bow. The string was made of the skin of the back of the beaver, which was cut into strips and twisted. One end was tied to the end of the bow, while the other had an eye which was hung over the other end. Bows of this description are used by the Kenai and the Tinneh of the Lower Yukon River. The arrow was made of yellow cedar and winged with eagle feathers. Flint for arrow-heads was obtained from a place in the mountains north of Laq'uyip'. It is said that the people made expeditions for obtaining this material, which lasted two years. The bow is held horizontally. The arrow is grasped by the bent first finger and thumb of the right hand. Sometimes the bow is held vertically.

FIG. 3.—Marmot trap.



Then the arrow is grasped by the thumb and first and second fingers of the right hand, and rests between the first and second fingers of the left. When hunting they carry their small game in pouches. In winter they travel on snow-shoes, the netting of which is made of beaver skin. For mountain climbing they use a pole about three fathoms long (tqê). Marmots are caught by means of traps of simple construction (fig. 3). A stick, the end of which is carved in the shape of a blue jay, crane, or some other animal, is tied to a longer stick, which is placed upright in the ground (1). A heavy club-shaped stick (2) is laid over the place where the two sticks are tied together, pressing on the head of the carved stick. The lower end of the latter is held to stick 1 by means of a loop. The lower end of stick 2 is burdened with heavy stones. A small flat stick or board (3) is placed over the loop, and lies in the entrance to the marmot hole. This board is covered with dirt and grass, and as soon as the animal steps on it the loop slips down stick 1, the heavy stick falls down and breaks its back. All these sticks are painted red, and are then covered



Photographic Sciences Corporation

**13 WYATT MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503**

18 20 22 25
16 24 32 40
14 28 36 48
12 30 40 60
10 36 48 72
8 48 64 96
6 72 96 144
4 144 192 288
2 288 384 576
1 576 768 1152

10 01
11 11
12 12
13 13
14 14
15 15
16 16
17 17
18 18
19 19
20 20
21 21
22 22
23 23
24 24
25 25
26 26
27 27
28 28
29 29
30 30
31 31
32 32
33 33
34 34
35 35
36 36
37 37
38 38
39 39
40 40
41 41
42 42
43 43
44 44
45 45
46 46
47 47
48 48
49 49
50 50
51 51
52 52
53 53
54 54
55 55
56 56
57 57
58 58
59 59
60 60
61 61
62 62
63 63
64 64
65 65
66 66
67 67
68 68
69 69
70 70
71 71
72 72
73 73
74 74
75 75
76 76
77 77
78 78
79 79
80 80
81 81
82 82
83 83
84 84
85 85
86 86
87 87
88 88
89 89
90 90
91 91
92 92
93 93
94 94
95 95
96 96
97 97
98 98
99 99
100 100

not use nets for catching rabbits. Levi said that the Laq'uyi'p hunted in this manner, but that the Ts'ets'a'ut did not do so. They always hunt singly, one man confining his operations to one valley at a time. They use canoes to a slight extent only. The canoes were made of the bark of the yellow cedar. They were about three fathoms long. The bark is stripped all around the tree. Then it is stretched, sewed in the proper shape, and the seams and holes are calked with gum. They used sails which were made of marmot skins.

In winter they live to a great extent upon meat dried during the summer months. The staple food is marmot meat, which is mixed with marmot grease, boiled and preserved in marmot guts.

The tribe consisted of two clans, the Eagle and the Wolf. Only members of the Wolf clan survive. The native names of the clans are lost, and they are called by their Nisk'a equivalents, Laqski'yek and Laqkyebō'. The equivalent of the latter among the Sā'nak'oan are the Tek'ocdē. The clans are exogamic. As members of one clan only survive, all the married Ts'ets'a'ut of this time have married members of foreign tribes. Each clan has separate names. I obtained names of the Laqkyebō' only.

Men.
DrEntsélé'.
qatló'.
Gwaya'.
Tsikyatsa'.
Tsātso'.
Cān.
Nadzē'.

Women.
Atlaâdzē'.
Cêtlgwē'uk.

The institutions are maternal, succession being in the female line. The child inherits from his mother's brother. We find among the Ts'ets'a'ut also the institution of avoidance between mother-in-law and son-in-law (matuōha') which is found among all the northern Tinnēh tribes. Levi explained that they were ashamed to talk to each other, and even to see each other. The mother-in-law leaves the house before the son-in-law enters, or, if such is impossible, she hides her face or turns the other way while he is near her. Levi stated that the adult man must also not look at his adult sister. This custom, he explained, is based on a tradition according to which a man married his sister. Their brothers were ashamed, tied them together, and deserted them; but the man broke the ropes. They had a child, and eventually he killed a ram, a ewe, and a kid of the mountain-goat, put on their skins, and they assumed the shape of goats. He had acquired the power of killing everything by a glance of his eyes. One day his tribe came up the river for the purpose of hunting, and he killed them. Then he travelled all over the world, leaving signs of his presence everywhere, such as remarkable rocks. The woman and her child went to the head waters of the Nass River, where they still continue to live on a lake.

I also found the Tinnēh custom according to which the parents of a child change their names and adopt that of father or mother of so-and-so. In this case at least the custom must be interpreted somewhat differently from the way in which it is usually done. There are a limited number of names only in the tribe, probably names belonging to the nobility. When a child reaches a certain age, his father, uncle, mother, or aunt may give

it's hunted in
s hunt singly,
ey use canoes
of the yellow
stripped all
hape, and the
ch were made

d during the
is mixed with

Wolf. Only
the clans are
qskiyek and
k'oan are the
only survive,
ers of foreign
the Laqkyeb'

sk.

the female line.
and among the
her-in-law and
rthern Tinné
each other, and
use before the
ce or turns the
ult man must
ed, is based on
Their brothers
the man broke
am, a ewe, and
ey assumed the
everything by a
for the purpose
over the world,
ble rocks. The
ss River, where

parents of a child
and-so. In this
differently from
nited number of
mobility. When
aunt may give

it his or her name; and since by this act the former owner has relinquished his place, he also loses the name belonging to the place, and consequently adopts that of the father, mother, or aunt of the owner of the place, thus indicating that he owned the place formerly.

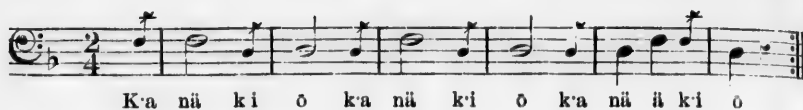
When a woman is about to give birth to a child a separate hut is built for her. When the child is being born two other women hold a stick horizontally in front of the mother. She takes hold of it, standing in a bent position. A third woman takes hold of the child, covering its mouth until it is born. The navel-string is tied with sinews, placed on a stick, and then cut. The mother rests for a day, then she takes up her usual occupation. After a boy is born the father must not cut off the legs of any kind of male game; after a girl is born he must not cut off those of female game, else the private parts of the child would swell.

A girl when reaching maturity wears a neck-ring of crabapple twigs (k'lasé'l), earrings of bone, and a piece of a rib around the neck, as amulets to secure good luck and a long life. She also wears a large skin hat which comes down over her face, and prevents the sun from striking it. If she should expose her face to the sun or to the sky, it would rain. The hat protects her face also against the fire, which must not strike her skin. For this purpose she also wears skin mittens. She wears the tooth of an animal in her mouth to prevent her teeth from getting hollow. For a whole year she must not see blood unless her face is blackened, else she would grow blind. For two years she wears the hat and lives in a hut by herself, although she is permitted to see others. After that period a man takes the hat off from her head and throws it away.

When a young man desires to marry a girl he asks her parents to whom he gives presents of meat at intervals during a year. Then the bride's parents invite him and his clan to a feast at which the marriage is celebrated. When a man dies and leaves a widow his brother marries her. He provides for her during the period of her widowhood. He must not marry her before the lapse of a certain time, as her husband's ghost stays with her and as the ghost would do him harm. The widow and also the widower eat out of a stone dish. She or he carries a pebble in the mouth, and a straight crabapple stick is placed along the back, inside the jacket. She sits upright day and night. The meaning of this custom is that her back shall remain as straight as the crabapple stick even in her old age. The deceased husband's brother must take care that everything is quiet in the widow's house. Any person who crosses the hut in front of her dies. She fasts for two or three days after the death of her husband. After that she is allowed to eat what she pleases. When a woman dies and her husband survives, he marries her sister.

Men must not cut their hair, else they would grow old quickly. Men and women do not eat the heads of mountain goats, else their hair would turn grey early.

In cases of sickness the shaman is called. He sings certain songs. He does not use a rattle, but only a feather wand, generally an eagle's tail. His hands and his face are painted red. He fans and blows the patient or blows water on to him. Then he takes the disease out of him with both hands, acting as though he dipped it out, and blows it into the air. He uses a square drum consisting of a frame over which a skin is stretched. The four corners of the frame are connected by thongs. Here is a shaman's song:



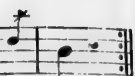
I add a dancing song :—



When a person is about to die his friends leave the house and desert him. Everything that is in the house is left behind. They are afraid of ghosts and avoid returning to the same place. Sometimes the body is placed in a hollow tree and stones are piled up in front of the entrance, or the butt of a tree is hollowed out on purpose. The knees of the body are doubled up so that they touch the chin. The relatives of the deceased cut their hair.

The ceremonial after the death of a chief is somewhat elaborate. The body is burnt by the clan of which the deceased is not a member. The chief's clan fasts for three days. On the fourth day they partake of a little water and raw food. On the fifth day they prepare a feast in honour of their deceased chief. During the feast some food is burnt for him. Those who buried the body receive blankets in payment. After they have finished eating they begin to dance. The mourners sit down around a fire wailing. They wear mittens and cover their mouths with their hands that the fire may not strike them. The same ceremony is repeated three times; the second time from the fifth to the tenth day, and the third time from the eleventh to the fifteenth day after the death of the chief; then they are clean. During all this time they do not undress, and keep their hats on. Every morning they wash in sour urine and put fresh coal on their faces.

The following tradition illustrates the beliefs of the Ts'ets'ä'ut in regard to the abode of the soul after death. 'A widow who was with child was killed by a branch striking her abdomen. Before dying she gave birth to two girls. Her sister adopted the children and reared them. In the spring of the year the tribe went up Portland Inlet to catch olachen. The woman with her two children could not travel as quickly as the others did and lagged behind. One night she was unable to reach the camp of the tribe, and when it grew dark she made a hut and camped with the two girls. They had nothing to eat and the children were crying. After some time they fell asleep. All of a sudden the woman awoke, and on looking around found herself in a village. It was a beautiful village. There were two rows of huts, one on each side of a river. She entered a house and saw her sister and her sister's husband. Then she knew that she was in the village of the ghosts. She began to cry and her sister cried with her. She told her sister that she had not been able to follow the tribe and that she and the children were starving. Then the ghost left the house and re-entered carrying a bag of marmot-guts filled with marmot meat and grease. She gave the bag and a dish to her sister to take them home. She told her that the meat would last her a long time. The woman took the bag



ki o



i ya hi ya ya

se and desert
are afraid of
the body is
the entrance,
of the body
of the deceased

laborate. The
member. The
partake of a
feast in honour
burnt for him.
After they
t down around
ths with their
ony is repeated
a day, and the
he death of the
to not undress,
r urine and put

Ts'ets'a'ut in
who was with
fore dying she
nd reared them.
Inlet to catch
avel as quickly
unable to reach
hut and camped
e children were
e woman awoke,
beautiful village.

She entered a
he knew that she
sister cried with
w the tribe and
ft the house and
armot meat and
hem home. She
an took the bag

and the dish and went home. The trail led up the river through a beautiful valley. Finally she came to a pass leading across the mountains. As soon as she reached this place she fainted. When she awoke she found herself in her hut. The two girls were asleep, and the bag and the dish which the ghost had given her stood next to them. She gave them some meat and told them that she had been to the village of the ghosts who had given her provisions. The next morning they proceeded on their journey and finally reached the tribe. The meat in the bag did not grow less although they were using it all the time. She told the people of her adventure and showed them the dish, which differed in shape from the dishes of the Ts'ets'a'ut. They lived on the meat for a whole year and it did not grow less. The girls became stout because they were always well nourished. The aunt and the two girls married. After some time the aunt's husband was lost when hunting porcupine. When he did not return the people went to look for him, but they could not find him. On returning they told the widow to go once more to the village of the ghosts in order to see if her husband were dead. She lay down to sleep, and when she awoke she found herself on the pass which she had crossed before. She saw the village down below in a beautiful valley on both sides of a river. While it was winter on earth it was summer here. She reached the village and entered her sister's hut. She told her that she herself and her nieces had married and that she had come to look for her lost husband. Then her sister cried and told her that her husband was in the hut next door where he stayed with his parents. The woman said: "He took a belt and a marmot-skin blanket away which belong to my child. I wish to take them home." Her sister replied: "He had them on when I saw him." Then the woman went into the hut next door and found her husband lying near the fire. She saw his parents and others of his deceased relatives. Then she asked him for the belt and the blanket, and he gave them to her. He also told her the place where his body was lying. It was at the foot of a mountain where they had camped before. There was a little boy in the hut who ran up and down in front of the woman. She grew angry and pushed him so that he fell into the fire. He vanished, for if a ghost is killed, he is destroyed entirely and he ceases to exist. The woman ran out of the house and at once she awoke in her own hut. It was early in the morning. The blanket lay next to her. The belt was on the ground, but one half of it was still in the ground and the people were unable to pull it out. She reported what her husband had told her, and when the people went to look for the body of her husband they found it at the place indicated by the ghost. The head was frozen to the ice, while the lower part of the body was moving. They tried to free it from the ice, but they were unable to do so. Then they cut wood and burnt the body right where it lay.

I did not obtain much information in regard to their games and pastimes. Levi insisted that he had never seen a Ts'ets'a'ut gambling and knew only a game at ball played with a ball of cedar-bark, and the game of cat's-cradle. Hunters, who desire to secure good luck, fast and wash their bodies with gingerroot for three or four days and do not touch a woman for two or three months. They drink decoctions of 'devil's club' for purposes of purification and for securing good luck.

Their traditions are remarkable on account of the slight influence of the coast tribes upon them. The Rev. F. Maurice has pointed out that the customs and traditions of the Tinneh of the interior of British Columbia,

namely, of the Chilcotin, Carrier, and Siccanie, have been influenced to a considerable extent by the coast tribes.¹

The mythology of the Ts'ets'a'ut agrees closely with that of the northern and eastern Tinneh tribes, which were studied by E. Petitot. Without entering into details I will mention a few of the fundamental traits of their traditions. The earth was originally level: it was hot, there was neither water nor rain, snow, fog, or wind. The animals were starving and tore the sky, went up and liberated rain, snow, and wind, which were kept in bags in the house of the goose woman. Rivers originated when a man, in order to obtain water, shot an arrow into the ground, whereupon a spring welled up. Mountains originated when two brothers flew from their giant wives, who pursued them. In order to obstruct their progress they threw the contents of the stomach of a cariboo upon the ground. These were transformed into mountains and valleys. Later on a flood destroyed all the people: only children of two clans survived, who were placed by their parents inside two trees. The fire was originally in possession of the grizzly bear, who wore a strike-a-light as an ear-ornament. A bird stole it and brought the stones to men. Glaciers and snow on the mountains are the remains of an immense snowfall which covered the whole world. There are a great many traditions telling of the marriage of men to women who were animals or other beings. A people of cannibals of human form, but with faces of dogs, called quda'le, and giants called Tsūfa', are the subjects of many tales.

IV. THE NISK'A'.

The customs of the Nisk'a' and those of the Tsimshian, which were described in the Fifth Report of the Committee, are practically identical. Therefore I will not enter into a detailed description of this tribe, but give such data only as supplement my previous notes. The Nisk'a' speak one of the three main dialects of the Tsimshian language; the other dialects are the Tsimshian and the Gyitkshan. They inhabit Nass River, except its upper course. Nowadays they live in a great many permanent villages, but formerly only four subdivisions were recognised by them. Laqk'altsa'p (=at the town), Andegualé', Gyitwunkse'tlk, and Gyit-laqdā'miks. I mentioned in my former report that the Tsimshian are divided into four clans: The Kanha'da, or Raven; the Laqkyebō', or Wolf; the Laqski'yek, or Eagle; and the Gyislawaduwe'da,² or Bear.

I discovered that these clans are subdivided or specialised, there being families of the clan at large, and subdivisions of the clan. Among the Nisk'a' and Gyitkca'n I found the following subdivisions:—

¹ The Rev. F. Maurice misunderstands me when he assumes that I think the coast people have not influenced the tribes of the interior. This influence is apparent in all the descriptions of former travellers, and has been admirably demonstrated by Mr. Maurice. But the reverse influence exists also, and has affected to the greatest extent the Tlingit tribes who trade with the interior, the Tsimshian, the Bilqula, and the Salish of the interior. The flood legends which refer to the finding of the earth by the musk rat, some of the burial customs and inventions, must have percolated through these channels, even if the Tinneh tribes have lost some of those customs owing to secondary changes.

² This spelling is more correct than Gyispuwē'da, as given formerly.

influenced to a

that of the
by E. Petitot.
the fundamental
: it was hot,
the animals were
ow, and wind,
vers originated
to the ground,
n two brothers
er to obstruct
a cariboo upon
alleys. Later
clans survived,
The fire was
e-a-light as an
men. Glaciers
snowfall which
tions telling of
er beings. A
called qudā'le,

an, which were
ically identical.
this tribe, but
e Nisk'a' speak
the other dialects
s River, except
any permanent
nised by them.
tlk, and Gyt'
Tsimshian are
e Laqkyebō', or
da,² or Bear.
sed, there being
n. Among the

I think the coast
nce is apparent in
demonstrated by
ed to the greatest
d, the Bilqula, and
nding of the earth
st have percolated
e of those customs

formerly.

I. K'anha'da : Raven.

1. Gyitnk'adō'k'.
2. Laqsē'el = on the ocean.

II. Laqkyebō : Wolf.

1. Laqt'ia'k'tl.
2. Gyitgyigyē'niH.
3. Gyitwulnaky'ē'l.

III. Laqski'yek : Eagle.

1. Gyisk'ab'enā'q.
2. Laqlō'ukst.
3. Gyits'a'ek'.
4. Laqts'emē'liH = on the beaver.

Gyispawaduwe'da : Bear.

1. Gyisg'ahā'st = grass people.

These totemic subdivisions are not represented in all the villages of the tribe, but are found as follows :—

I. Laqk'altsa'p.

Raven : K'anha'da, Gyitnk'adō'k'.
Wolf : Laqkyebō'.
Eagle : Laqski'yek, Gyisk'ab'enā'q.

II. Andegualē'.

Raven : Laqsē'el.
Wolf : Gyitgyigyē'niH.

III. Gyitwunksē'tlk.

Wolf : Laqt'ia'k'tl.
Eagle : Laqlō'ukst, Gyits'a'ek'.
Bear : Gyisg'ahā'st.

IV. Gyit'laqdā'mike.

Raven : Laqsē'el.
Wolf : Gyitwulnaky'ē'l.
Eagle : Laqski'yek, Laqts'emē'liH.

These are the old recognised subdivisions of the Nisk'a' which were given to me by 'Chief Mountain,' and corroborated in part by other members of the tribe. It is remarkable that in olden times the Gyispawaduwe'da, who are nowadays the most numerous clan, appear confined to a single village. It is possible that the clan became more numerous owing to intermarriage with the Tsimshian.

Turning towards Skeena River we find the Gyitwuntlkō'l, who are

considered a separate tribe, and whose dialect is intermediate between the Nisk'a' and the Gyitkshan. They have two clans: the K'anha'da and Laqkyebō'.

'Chief Mountain' gave me the following subdivisions of the Gyikshan; the list is, however, incomplete:—

I. Gyitwung'a'.

Raven : K'anha'da.

Eagle : Laqski'yek.

II. Gyitsigyu'ktla.

Raven : K'anha'da.

Bear : Gyisg'a'hast.

III. Gyispayó'kc.

Raven : K'anha'da.

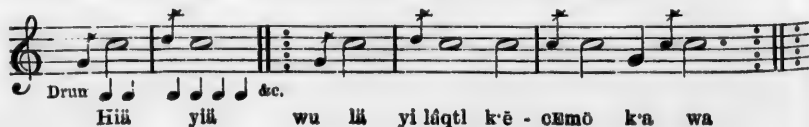
Wolf : Laqkyebō'.

IV. Gyit'anmā'kys.

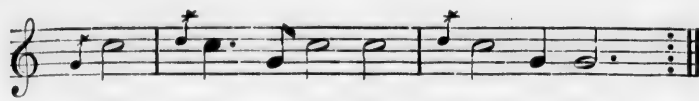
The subdivisions of a clan cannot intermarry with the main clan or with any other of its subdivisions. The people form four exogamic groups only: Raven, Wolf, Eagle, and Bear. Of these the Bear is considered the noblest clan, because it derives its origin from Heaven.

In all festivals the totems of the clan play an important part. Carvings representing the totem are worn as masks or head-dresses; they are painted or carved on houses and utensils, and on memorial columns and totem poles. In all initiations an artificial totem animal brings back the novice. I made particular inquiries regarding the meaning of masks and carvings, and the modes of their use. I shall next give what new information I obtained on these points.

When the Gyitnk'adō'k' branch of the K'anha'da have a potlach, three masks make their appearance, one of which has a moustache and represents a young man named Gyitgoó'yim, while the other two are called Cā'cā. They represent the following tradition. While the people were staying at the fishing village Gulgyē'utl, the boys under the leadership of a young man named Gyitgoó'yim made a small house in the woods behind the town. They took a spring salmon along and played with it until it was rotten. They caught small fish in the creek and split and dried them. They made small drums and began to sing and to dance. For four days they stayed there, dancing all the time. Then they became supernatural beings. Gyitgoó'yim's hair had turned into crystal and copper. The people were about to move to another camp, and went to the place where they heard the boys singing.



te between the
K'anha'da and
the Gyikshan ;

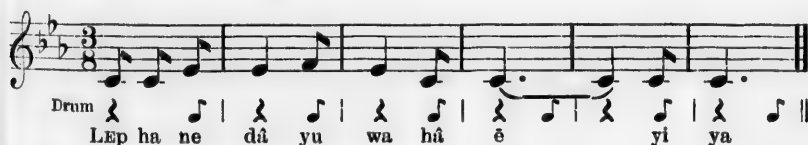


wu lä yi-lä a aqtl k'ê - sël dautl nēq-nō'k.

I.e. Where the copper hair, when the ice hair, is spread out, is the supernatural being.

As soon as the people approached them they disappeared and were seen at once dancing and singing at a distant place. They were unable to reach them. Then they returned, and since that time they have used the song and dance of these boys.

The Gyispawaduwe'da have one head-dress representing an owl (*Māskutginnu'ks*) surrounded by many small human heads called *gyadem tlak's* (claw-men). This is worn in potlaches and commemorates the following tradition. A chief at T'emlaq'a'mt had a son who was crying all the time. His father became impatient and sent him out of the house saying, 'The white owl shall fetch you.' The boy went out, accompanied by his sister. Then the owl came and carried the girl to the top of a tree. The people heard her crying and tried to take her down, but they were unable to climb the tree. After a while she ceased to cry and married the owl. They had a son. When he grew up she told her husband that she desired to send her son home. Then his father made a song for him. His mother told him to carve a head-dress in the shape of an owl for use in his dance and to sing the song which his father had made for him. She bade him good-bye and said that her husband was about to carry her to a far-off country. The owl carried both of them to the old chief's house. When his wife saw the unknown boy she was afraid, but her daughter addressed her, saying that the boy was her grandson. Then the old woman took him into her house while the boy's mother and the owl disappeared. When the boy was grown up his mother's brother gave a potlach, and before the blankets were distributed the boy danced, wearing the owl head-dress and singing the song which his father had made for him.



Drum

Lep ha ne dā yu wa hā ē yi ya



Lep ha le dā yu wā hā ē hē he hā ā hā



yi ā hā ē i ya Lep ha lé dat k'as wā gyitl mas k'uts kugu



I.e. My! brother this tree is my seat.

Some of the dances are actual mimical representations of myths. In one ceremony two men dressed like Ts'ets'a'ut hunters appear. Suddenly the noise of thunder is heard, and down through the roof comes a person dressed in eagle skins and wearing the mask of the thunder bird. The Ts'ets'a'ut shoot at the bird. At once there is a flash of lightning and a clap of thunder: one of the men falls dead and the other one escapes. The fire is extinguished by means of water, which wells up through a pipe of kelp which is laid underground and empties into the fire. At the same time water is thrown upon the spectators through the roof. This performance is accompanied by the song of the women, who sit on three platforms in the rear of the house. The song relates to the myth which is represented in the performance.

Burial.—The burial is attended to by members of the clan of the father of the deceased, who are paid for their services. Four or five men bend the head of the body down and his knees up. Thus he is placed in a box. Chiefs lie in state for some days, while others are buried without delay. They burn food and clothing for the deceased, saying that it is intended for him. Else the ghost would trouble them. Then they cut wood for a pyre; the box is put on top of it and it is burnt. The body is poked with long poles in order to facilitate combustion. When it bursts and gas escapes they believe they hear the voice of the ghost. Men and women sit around the pyre and sing all the cradle songs of the clan which are contained in their legends. The remains are put into a small box and placed on trees. Cotton-wood trees are often selected for this purpose. The body of the shaman is also burnt.

Some time after the burial the son or nephew of the deceased erects a column in his memory (*ptsān*). As the meaning of such columns is not yet clear by any means, I asked 'Chief Mountain' to describe to me the festivals which he gave after the death of his father, who was a Gyispawaduwe'da. His father had a squid for his protector (*nāqnó'k*). After the death of his father he invited all the people to his house. During the festival the ground opened and a huge rock which was covered with kelp came out. This was made of wood and bark. A cave was under the rock and a large squid came out of it. It was made of cedar bark and its arms were set with hooks which caught the blankets of the audience and tore them. The song of the squid which was sung by the women sitting on three platforms in the rear of the house is as follows:—

| : K'agaba'qsk laqha' háyá'i : |
| : It shakes the heaven háyá'i : |

Ntí k'akysl k'a'd'ikysl wí naqnó'k lā gyigya'detl ts'a'gatl aks
For the first time comes great supernatural being in living inside of water
d-m in lāā'yítl am gyigya't.
to look at the people.

After the squid and the rock had disappeared a man wearing the sun mask appeared in the door, and when the people began to sing his song a movable sun which was attached to the mask began to turn. The sun belongs to the Gyispawaduwe'da; the squid reminds the people that one of his father's ancestors when hunting squids at ebb tide was captured by a huge animal. His friends tried to liberate him, but were unable to do so. When the water began to rise they pulled a bag of sea-lion guts over his head, hoping that the air in it might enable him to survive, but when they looked for him at the next tide they found him dead.

After the festival 'Chief Mountain' erected the memorial column. It represented, from below upwards, first four men called Lōayō'k's, or the commanders. These are a crest of the Gyispawaduwe'da. Tradition says that one night some men for some purpose dug a hole behind a house near a grave-tree. They saw an open place in the woods, a fire in the middle, and ghosts were dancing around it wearing head-dresses. They were sitting there as though they were in a house, but the men saw only a pole where the door of this house would have been. Four men called Lōayō'k's were standing at the door, and called to them *nagwīt!* (To this side!) Since that time the Gyispawaduwe'da have used these figures.

On top of the four men was the sea-bear (*mēd'ēk īm akys*) with three fins on his back. Each fin had a human face at its base. His father had requested him to put the killer whale on the column, but he preferred to place the sea-bear on it because it is the highest crest of the Gyispawaduwe'da. The tradition of the sea-bear tells how four brothers went down Skeena River and were taken to the bottom of the sea by Hagulā'k', a sea monster, over whose house they had anchored. His house had a number of platforms. Inside were the killer whales, Hagulā'k's men. He had four kettles, called Lukewarm, Warm, Hot, Boiling, and a hat in shape of a sea monster, with a number of rings on top. The name of his house was Helahā'dēk' (near the Haida country). He gave the brothers the right to use all these objects, and with them their songs, which are sung at all great ceremonies of the clan. The song of the house is as follows:—



I.e. My friend, walk close to the country of the Haida, the great Hagulā'k'.

Hagulā'k' also gave them two cradle songs, which are sung for children of the clan and also at funerals.

Atlgwā'skm gunā't, atlgwā'skm gunā't, atlgwā'skm gunā't.
O real strong friend, O real strong friend, O real strong friend.

Ma'a'qtlu wibwō'tk'itl tlgōkyramqk' tlguts'alt tlgugō'hak'ala'a
Where he came from with his little black little face with his little club

yag'abūt.
running down.

And the second one :—

Guna'dēt, guna'dēt, guna'dēt, guna'dēt.
O friend, O friend, O friend, O friend.

Wubinnō'ōtlē, skmt.iā'n, hanq-ā'nō, hangyā'ō' agō.
They are very white, the real elks, which he won gambling, which he found when they drifted down to him.

Marriage.—When a young man desires a girl for his wife he sends a certain amount of property (*hana'k's*) to her parents for the purchase of the girl. If the suitor and the amount of property are acceptable, they send word to him stating that they accept his suit. Then the young man takes a number of slaves, who accompany him. They are called *lōdā mek'sgut* (= always close to him). They arm themselves, and the young man embarks with them in a canoe and sails to the bride's house. As soon as her relatives see them coming, they arm themselves with clubs and stone hammers and rush down to the landing-place. They break the canoe and try to drive off the companions of the young man. They fight seriously, and sometimes one of the *lōdā mek'sgut* is killed. This foretells that the couple will never part. After the fight is over the bridegroom and his companions are carried into the bride's house. Then her friends strow eagle down, which is kept in a bag made of sea-lion's intestines, on the companions of the bridegroom, and the fighting ceases. Her father puts on his head-dress and dances while her friends sing. Then a feast is given, during which the young man pays the remainder of the purchase money. In the evening the girl's clan gives a considerable amount of property to the bridegroom (*lōgyinā'm*), which he distributes among his clan according to the amount which they have contributed to the purchase money. Her father and brothers give the groom a new canoe in place of the one which was broken in the morning. Then the bride is carried down to the canoe, and she departs with her husband to his village, where they live.

If the groom belongs to the same village, the couple often stay with the girl's parents.

The winter ceremonial.—I did not see any part of the winter ceremonial of the Niska', but I received descriptions which, in the light of our knowledge of these ceremonies among the Kwakiutl, bring out sufficiently clearly their similarities. There are six secret societies among the Niska', which rank in the following order: the Semhalai't, Meitla', Lōtē'm, Ōlala', Nanestā't, Hōnana'tl, the last being the highest. The Semhalai't is really not confined to the winter ceremonial, but is obtained when a person obtains the first guardian spirit of his clan and performs the ceremony belonging to this event. The tradition of the origin of these ceremonies is the same as that found among the Tsimshian, to which I alluded in the Fifth Report of the Committee, p. 57 (see the full legend in 'Zeitschrift für Ethnologie,' 1888). The version of the legend which I obtained from the Niska' localises the events at Bellabella, and it is added that the ceremonies were obtained first by the Gytqā'tla (a Tsimshian tribe located on the islands south-west of Skeena River)

'hak'ala'q
little club

angya'ā' agū.
he found when
lifted down to him.

wife he sends a
the purchase of
acceptable, they
the young man
called *lōdā'mek-s-*
the young man
se. As soon as
clubs and stone
k the canoe and
y fight seriously,
pretells that the
legroom and his
er friends strew
testines, on the
Her father puts
a feast is given,
purchase money.
t of property to
s clan according
se money. Her
of the one which
wn to the canoe,
ey live.

en stay with the
inter ceremonial
he light of our
g out sufficiently
ong the Nisk'a',
ēitla', Lōtlē'm,
The Semhalai t
obtained when
id performs the
e origin of these
ian, to which I
7 (see the full
on of the legend
Bellabella, and
the Gyitqā'tla
Skeena River)

from the Bellabella, and later on by the Nisk'a' from the Gyitqā'tla. This is corroborated by linguistic evidence. All the names of these societies, with the exception of the first, are of Kwakiutl origin. [Meitla'=teasing; Lōtlē'm, Kwakiutl Nō'ntlēm=foolish; Ōlala', name of a Kwakiutl ceremony; Nānestā't, Kwakiutl, Nōntsistā'latl, dance of Nō'ntsista; Hōnana tl, dance of (11). The call of the Ōlala', *hāp*, is also a Kwakiutl word designating eating.] The original tradition mentions three societies only—the second, third, fourth. This shows that the first is not a secret society, properly speaking, and that the fifth and sixth are later introductions. The Nisk'a' state that with the ceremonies came the use of large whistles. The Kwakiutl of Fort Rupert state also that the use of large whistles and the custom of eating slaves and corpses and of biting pieces of flesh out of the arms of people came to them from the Hē'iltuk. We must assume, therefore, that these ceremonies originated in the region of Milbank Sound. As the legends of these societies throw a clear light upon their practices, I will give the Nisk'a' tradition of the origin of the secret societies in full.

A Wutsda' (Bellabella) named Sagaitlā'ben (a Nisk'a' name) went hunting. He saw a bear, which he pursued. He shot it several times, but was unable to kill it. Finally the bear reached a steep cliff which opened and let him in. As soon as he entered he heard the voices of the Ōlala' calling '*hāp*,' and he fainted. Then his soul was taken into the house. In the rear of the house he saw a large room partitioned off. The partition was hung with red cedar-bark. It was the secret room of the Ōlala' (*ptā'ōll*). To the right of the door, on entering, was a secret room for the Meitla', and to the left of the door one for the Lōtlē'm. The chief, who was sitting in the rear of the house, ordered a fire to be made, and spoke: 'Those here are the Meitla'; they did not bring you here. Those are the Lōtlē'm; they eat dogs; they did not bring you here. But these are the Ōlala'; they eat men; they brought you here. You shall imitate what they are doing.' He had a heavy ring of red cedar-bark around his neck, a ring of the same material on his head, and wore a bearskin. He said: 'You must use the same ornaments when you return to your people.' He took a whistle out of his own mouth and gave it to Sagaitlā'ben. He gave him his small neck-ring of cedar-bark, which instilled into him the desire of devouring men (therefore it is called *k'ātsq em lōu*, cedar-bark throat), and he gave him large cedar-bark rings and a small bearskin, which enabled him to fly. He told him: 'You shall kill men, you shall eat them, and carry them to my house.' Then he opened the door. The singers sang and beat time, and Sagaitlā'ben flew away from town to town over the whole world, crying '*hāp*' all the time. He went from the country of the Wutsda to Skeena River and to Nass River. Sometimes he was seen sitting on high cliffs. He killed and devoured people whom he found in the woods.

After three years he was seen near the village of the Gyitā'mā't. They attempted to catch him. They killed dogs and threw them into a hole, and a number of shamans hid under a canoe near by. Soon he was heard to approach. He alighted on the top of a dry cedar. He lay there on his stomach, and the point of the tree was seen to penetrate his body and to pierce it. But it did not kill him. When he saw the dogs he flew down, and, after having eaten, the shamans rushed up to him, caught him, and took him up to the house. They tried to cure him, and the people

sang Ōlala' songs, all of which have a five-part rhythm (♩ ♪ ♪). He tried to fly again, but was unable to get out of the house. Finally he was tamed and became a man. Then the Gyi'tamā't took him back to his home and received in return many slaves, coppers, and canoes.

The ceremonies take place in the month *Lōkys em gunā'k* (cold month, or December).

The Lōtlē'm dance in a two-part rhythm : their call is a sharp *h, h* ; their movements sudden jerks of the forearms, first the left moving up to the shoulder, while the right moves down, then *vice versa*.

The Mēitla' dance in a three-part rhythm. The last two dances correspond to the Nōntsistā'latl of the Kwakiutl. When the members of these societies are in a state of ecstasy, they throw fire around and knock to pieces canoes, houses, and anything they can lay their hands on.

The insignia of the societies are made of cedar-bark dyed red in a decoction of alder-bark. For each repetition of the ceremony a new ring is added to the head ornament of the dancer. Those of the Lōtlē'm and Ōlala' consist therefore of rings placed one on top of the other, while the Mēitla' receives first a red ring, the second time a white ring, and so on alternating. His rings are twisted together.

There are only a limited number of places in the societies, and a new member can be admitted only when he inherits the place of a deceased member, or if a member transfers his place to him. If such a transfer is to take place, the consent of the chiefs of the clans must first be obtained. Then one evening the chiefs during a feast surround the youth and act as though they had caught the spirit of the society in their hands and throw it upon the novice. If he is to be a Lōtlē'm, a noise : *hōñ, hōñ*, is heard on the roof of the house, and the youth faints. The Lōtlē'm (or the members of the society in which he is to be initiated) are called to investigate why the youth fainted. They enter singing, their heads covered with down. They place him on an elk-skin, carry him around the fire, then they throw the youth upward and show the people that he is lost. After some time, when the novice is expected back, the people assemble in the house, and all the members of the nobility try to bring him back by the help of their spirits. In order to do this they dance with the head ornaments of their clans, their rattles, dancing blankets, aprons and leggings, or they use the head ornament representing two bears' ears, which is made of bearskin set with woman's hair, which is dyed red : this ornament is used by all clans ; or they wear masks representing their guardian spirits (*neqnō'k*). As an example of these I will describe the spirit of sleep (*wōq*) which belongs to the Gyispawaduwe'da. The owner of this spirit appears sleeping, his face covered with a mask, the eyes of which are shut. Then a chief steps up and tries to awake him by hauling the drowsiness out of him with both his hands. Then the eyes of the mask are opened, and roll while the man who wears the mask rises. The chief who took the drowsiness out of him asks if he shall try to put the people to sleep, and on being asked to do so he throws his hands open. The *neqnō'k* is supposed to enter the people, and all close their eyes. After some time he gathers the drowsiness again, and they awake and sing :—

| : *Aiwōtlwōgkūā'*, *aiwōtlwōgkū'* : |
Oh ! how sleepy we are. Oh ! how sleepy we are.

He
Finally he was
back to his
oes.
'k (cold month,

Adē gūgō'ēt nēll gyamk' atl ts'xmlaqha' ya tla gyin tqaldā' utl dēm wōg
Whenever strikes me the heat of heaven ya! again comes (fut.) sleep.
k'a's nēke xē wōg, kua!
to the husband of sleep, kua!

| : *Aiwōtlwōgkūā'*, *aiwōtlwōgkō'* : |
Oh! how sleepy we are. Oh! how sleepy we are.

s a sharp *h, h* ;
t moving up to

st two dances
the members of
und and knock
ands on.

dyed red in a
y a new ring is
e Lōtlē'm and
ther, while the
ring, and so on

ies, and a new
e of a deceased
ch a transfer is
rst be obtained.
uth and act as
ands and throw
hōn, *hōn*, is heard
Lōtlē'm (or the
l) are called to
ng, their heads
him around the
ople that he is
ack, the people
try to bring him
dance with the
oes, aprons and
two bears' ears,
dyed red : this
representing their
will describe the
da. The owner
ask, the eyes of
him by hauling
the eyes of the
ask rises. The
try to put the
his hands open.
lose their eyes.
they awake and

In this manner the spirit of sleep proves his presence and is asked to try to bring back the novice.

One *neqnō'k* after the other tries to bring him back. If the novice does not return by midnight of the first night, the ceremony is interrupted and continued the following night. On one occasion a member of the Lōtlē'm was the last to try. He took his *neqnō'k*, a small carved human image, held it up, and asked it to bring back the novice. Then he poured a spoon of grease into the fire and threw the carving after it. At once the whistles of the novice were heard on the roof. All the Lōtlē'm rushed out of the house, but soon they returned, saying that they had seen him, but lost him again. They cried, '*ēh!*' (drawn out very long). Then all the people left the house. After the novice is lost in this manner he is expected back on the following day. Early in the morning a killer-whale or some other animal is seen on the river carrying the novice on his back. He is crying *mā, mā, mā, mā!* all the time, and the people go to see him. The Lōtlē'm take a canoe and paddle, singing, towards the novice. When they have almost reached him one of their number, who stays ashore and wears a bearskin, drives all the people into the houses. The Lōtlē'm take the novice into their canoe and destroy the whale float which carries him, and which is manipulated by means of ropes. Then he runs up and down the street like one wild, and the Ōlala' follow him and bite any of the profane who dare to leave the house. The novice catches a dog, tears it to pieces, and eats it going from house to house. When returning he is naked. Then they enter his house, which becomes tabooed. A rope hung with red cedar-bark is stretched from the door of the house to a pole erected on the beach, preventing the people from passing in front of the house and compelling them to go behind. A large ring of cedar-bark is fastened to the pole in front of the house. These remain on the house for a day after the return of the novice. On the following day four men put on bearskins and place rings of red cedar-bark on their heads. Thus attired they go from house to house inviting the people to see the dance of the novice and to learn his songs. When the people have assembled, the uncle of the novice throws blankets on the ground, on which the novice dances. Then his uncle pays the chiefs who tried to bring him back, and distributes blankets among the other people also. He gives a feast consisting of two kinds of berries, each mixed with grease. Chiefs are given large spoons filled with grease. Their people help them to empty the contents, as they must not leave any of the food that they receive. After the ceremony the novice is called *ilaamgya't* (a perfect man).

The man who wants to become a member of the Ōlala' must have been a *halai't* (shaman) first.

The following description of the initiation of an Ōlala' was given by a man who had gone through the ceremony himself, but who is a Christian now. It is a question to my mind if the ceremonies at the grave about which he told me were actually performed, or if he reflected only the dread in which the Ōlala' were held.

During a festival when he was to be initiated his friends pretended to begin a quarrel. They drew knives and pretended to kill him. They let him disappear and cut off the head of a dummy, which was skilfully introduced. Then they laid the body down, covered it, and the women began to mourn and to wail. His relatives gave a feast, distributed blankets, slaves, canoes, and coppers, and burnt the body. In short, they held a regular funeral.

After his disappearance he resorted to a grave. He took the body out of the grave and wrapped a blanket about himself and the body. Thus he lay with the corpse for a whole night. The other Ōlala' watched him from a distance. In the morning he put the body back into the grave. He continued to do so for some time in order to acquire courage. All this time, and for a whole year, he was not seen by any member of the tribe except by the Ōlala'.

A year after his disappearance his nephew invited all the tribes to bring him back. This was done in the same manner as described above in the case of initiation of the Lōtle'm. Finally his whistles were heard, and he appeared on the roof of the house crying *ā lalalalala!* He disappeared again, and in the following night after prolonged dances he was seen on the hills dancing in a fire, which he had built in such a manner that when he danced behind it it looked from the village as though he was standing right in it. The following day he appeared carried by his totem animal.

The Gyispawaduwe'da are brought back by a killer-whale, as described above; the Laqkyebō' by a bear; the Laqski'yek appear on the back of an eagle which rises from underground; the K'anha'da on the back of a frog. Sometimes the novice appears on a point of land some distance from the village carrying a corpse in his arms. Then he is said to walk over the surface of the water and to come ashore in front of the village. This is accomplished by means of a raft which is covered with planks, and burdened so that it floats a short distance under the surface of the water. It is pulled by means of a rope by some of the other Ōlala' while the novice is dancing on it, so that the impression is conveyed that he has approached on the surface of the water. When he reaches the village he eats of the body which he is carrying, and one or other of the chiefs kills a slave and throws the body to the Ōlala', who devour it. It is said that before eating human flesh the Ōlala' always use emetics, and that afterwards they tickle their throats with feathers to ensure vomiting.

In festivals which take place during the dancing season the Ōlala' receives his share first, and nobody is allowed to eat until he has begun to eat. He has a dish and a spoon of his own. These are wound with bark. Those who have been Ōlala' formerly are his servants and bring him food. When he hears the word *lō'lek* (ghost) he gets excited and begins to bite again. After he ceases to bite and to devour men a heavy ring of red cedar-bark is placed around his neck, and he is led slowly around the fire. The ceremony is called 'making him heavy' (*sep'a lyiq*), and serves to prevent his flying away and getting excited again. He must stay in his room for a whole year after his initiation. After biting he must chew the bark of 'devil's club' (*wōō'mat*), which acts as a purgative.¹

In olden times the appearance of the artificial totem animal, or of the guardian spirit, which was described above, was considered a matter of

¹ See also Fifth Report, p. 57.

dis pretended to
him. They let
s skilfully intro-
ne women began
buted blankets,
ort, they held a

ook the body out
the body. Thus
la' watched him
k into the grave.
re courage. All
y member of the

all the tribes to
described above
tles were heard,
lalala! He dis-
d dances he was
h such a manner
ge as though he
d carried by his

male, as described
r on the back of
on the back of a
me distance from
aid to walk over
the village. This
with planks, and
ace of the water.

while the novice
e has approached
e he eats of the
efs kills a slave
ssaid that before
that afterwards

ason the Ōlala'
he has begun to
ound with bark.
l bring him food.
nd begins to bite
eavy ring of red
around the fire.
, and serves to
must stay in his
ne must chew the
e.¹

animal, or of the
ored a matter of

great importance, and any failure which would disclose the deception to the uninitiated was considered a great misfortune, which was atoned only by the death of those involved in the disclosure. One striking instance of an event of this kind which took place among the Hēiltsuk was reported to me. Three brothers invited all the tribes, among them the Tsimshian, to a festival. The eldest was to return from a visit to the bottom of the sea. When the visitors landed they had to wait on the beach for his return. A rock was seen to emerge at some distance from the shore. It opened and the young man stepped out and danced, adorned with his headdress. Then he stepped back into the rock, which disappeared again in the waters. The rock was made of wood and covered with kelp. Its movements were regulated by means of ropes running to the woods where a number of men were hidden, who operated them. After the rock had emerged twice the ropes became entangled, and they were unable to make it emerge for the third time. The man who was hidden in the rock was drowned. The family of the man who was lost in this manner concealed their grief, and his brothers pretended that he had stayed with the spirit residing at the bottom of the sea. They went through the whole festival. After the guests had departed all the surviving members of the family tied themselves to a long rope, sang the cradle song of their family, and precipitated themselves from a cliff into the sea.

Shamanism.—In reply to my questions regarding the acquisition of supernatural helpers and the powers of the shaman (*halai't*), 'Chief Mountain,' who is nowadays a regular attendant at church, gave me the following account of his own experience. Only a man whose father was a shaman can become a shaman. When he himself was a youth the supernatural beings (*neqnó'k'*) were pursuing him all the time. One day a beautiful girl appeared to him and he fainted. She taught him her song which enabled him to make the olachen come in spring, and which is as follows:—

Lawē'tl wul haqhā'gwuqtł akys atl k'igyē'wutł.
Behold where meet the waters on the beach.

Gyitwulgyigyā'mk' wulōd'atl kāt cāky.
(People of warm place) where is heart olachen.

I.e. Behold where the tides meet at Gyitwulgyigyā'mk' are many olachen.

She wanted to have intercourse with him. One night she took him through a fire, and since that time he was able to handle fire with impunity. When she left him he saw that she had an otter tail. Her name was *Kcemwa'tsq* (land-otter woman).

She is a *neqnó'k'* of the Laqski'yek clan. When he gave a festival he danced with the mask of this *neqnó'k'*. He was covered with otter skins and wore claws of copper. He moved around the fire like an otter crying '*uhuiā'*'. This ceremony is called the *Senhalait*. Later on he saw four other supernatural beings, who had the shape of wild-looking men, who wore bearskins and crowns made of the claws of bears. They taught him to foresee sickness. At one time the Gyitqadē'q disbelieved his power over fire. He asked them to build a large fire. He threw an iron hoop into it, moistened his hands, and covered his face, hair, and hands with eagle-down. Then he stepped barefooted over the glowing embers, took the red-hot hoop, and carried it through the fire without burning his hands or his feet. He added that a few years ago he repeated this

experiment, but as he failed and burnt his hands and feet he gave up his supernatural helper and became a Christian. He also added that many who pretend to be shamans have no supernatural helpers at all. They cannot cure or foresee disease. When he was called to cure disease the four supernatural men appeared to him and helped him. They told him to draw the breath of the supernatural beings out of the body of the patient. Other shamans suck the disease out of the body. They pointed out witches to him, and enabled him to see ghosts. A few years ago a number of shamans were dancing in a house. When he entered he saw a ghost dancing among them, and foretold at once the death of one of the shamans. Indeed, after a few hours one of them died. The shaman wears stone and bone amulets, and does not cut his hair. His appearance is the same as that of the Tlingit shaman.

Witchcraft is practised by people called *Haldā'wit*. They steal a portion of a corpse, which they place in a small, long, watertight box. A stick is placed across the middle of the box, and thin threads are tied to this stick. The piece of corpse is placed at the bottom of the box, and part of the clothing or hair of the person whom the *Haldā'wit* desire to bewitch is tied to thin strings. If it is in immediate contact with the body the person will die soon; if it is hung a little higher he will be sick for a long time. If hair is put into the box he will die of headache; if part of a moccasin, his foot will rot; if saliva is used he will die of consumption. If the person is to die at once the *Haldā'wit* cuts the string from which the object is suspended, so that it drops right on to the corpse. This box has a cover, and is kept closely tied up. It is kept buried under the house or in the woods. After the *Haldā'wit* has killed his enemy he must go around the house in which the dead one is lying, following the course of the sun. After his enemy is buried he must lie down on the grave and crawl around it, again following the course of the sun, and attired in the skin of some animal. If they do not do this they must die. Therefore the *Nisk'a'* watch if they see anyone performing this ceremony. Then they know that he is a *Haldā'wit*, and he is killed. He is not tied and exposed on the beach at the time of low water, as is done by the Tlingit. When a corpse is burnt the *Haldā'wit* tries to secure some of the charred remains and uses them for painting his face. This is supposed to secure good luck. The *Haldā'wit* sometimes assemble in the woods, particularly when dividing a body. Then they cover their faces with masks, so that a person who should happen to come near may not know them. If anyone should happen to see them they try to catch him and make him a *Haldā'wit* also. If he refuses to join them he is killed. Once a man by the name of *K'amwā'skyē* was caught in this manner. He pretended to accept, and was given a mask. They made a song and sang while he danced

Yag'ahō'dē bā'lek'ē,
Wilwulā'ns K'amwā'skyē,

i.e. the ghosts run to the beach on account of the winds of *K'amwā'skyē*. He emitted winds while he was dancing. He danced, hidden behind the trees. Then he turned his mask round so that it was on his occiput, and made good his escape. He reached his house, told what he had seen, and the *Haldā'wit* were killed.

The similarity between this method of witchcraft and the *ē'ka* of the *Kwakiutl* (Sixth Report, p. 60) is striking.

As in olden times cremation was prevalent, they tried to secure

trumps. It is the object of the game to guess in which of the two bundles of sticks, which are wrapped in cedar-bark, the trump is hidden. Each player uses one trump only.

3. Matsqâ'n.—About thirty small maple sticks are divided into four or five lots of unequal numbers. After a first glance one of the players is blindfolded, the other changes the order of the lots, and the first player must guess how many sticks are now in each lot. When he guesses right in three, four, or five guesses out of ten—according to the agreement of the players—he has won.

4. Göntl : a ball game. There are two goals, about 100 to 150 yards apart. Each is formed by two sticks, about ten feet apart. In the middle, between the goals, is a hole in which the ball is placed. The players carry hooked sticks. Two of them stand at the hole, the other players of each party, six or seven in number, a few steps behind them towards each goal. At a given signal both players try to strike the ball out of the hole. Then each party tries to drive it through the goal of the opposing party.

5. Tlēt! : a ball game. Four men stand in a square : each pair, standing in opposite corners, throw the ball one to the other, striking it with their hands. Those who continue longest have won.

6. Smēnts.—A hoop is placed upright. The players throw at it with sticks or blunt lances, and must hit inside the hoop.

7. Matldä.'—A hoop, wound with cedar-bark and set with fringes, is hurled by one man. The players stand in a row, about five feet apart, each carrying a lance or stick. When the ring is flying past the row they try to hit it.

8. Halha'l : spinning top, made of the top of a hemlock tree. A cylinder, $3\frac{1}{2}$ " in diameter and 3" high, is cut; a slit is made in one side and it is hollowed out. A pin, $2\frac{1}{2}$ " long and $\frac{1}{4}$ " thick, is inserted in the centre of the top. A small board with a wide hole, through which a string of skin or of bear-guts passes, is used for winding up the top. It is spun on the ice of the river. The board is held in the left, and stemmed against the foot. Then the string is pulled through the hole with the right. Several men begin spinning at a signal. The one whose top spins the longest wins.

V. LINGUISTICS.

I. NĪSK-A'.

The Nisk'a' does not differ very much from the Tsimshian. There are certain regular changes of sounds—which, however, are not yet sufficiently clear to me, but some of which will become apparent by a glance at the comparative vocabulary—slight differences in grammar and in vocabulary. For this reason I confine myself to a very few remarks, leaving a full discussion of the collected material for a future opportunity.

The plural of noun and verb is formed in the same manner as in Tsimshian. Although the same words do not always follow the same rules, the classes are almost the same. The remarks regarding adjective and verb (Fifth Report, pp. 83, 84) hold good in Nisk'a' also.

The system of numerals differs in so far as there is no separate class for long objects.

Class	1	2	3	4
	Counting	Flat Objects	Round and Long Objects, groups of forty	Men
1	ky'äk'	ky'äk'	ky'e'el	ky'äl
2	t'Epqä't	t'Epqä't	ky'e'lbēl	bag'adē'l
3	golä'nt	golä'nt	gul'a'l	gulä'n
4	tqälpq	tqälpq	tqälpq	tqälpqä'l
5	k'stēnc	k'stēnc	k'stēnc	k'stēnsä'l
6	k'ä'elt	k'ä'elt	k'ä'elt	k'ädēldä'l
7	t'Epqä'elt	t'Epqä'elt	t'Epqä'elt	t'Epqäedä'l
8	k'andä'elt	yuqdä'elt	yuqdä'elt	yuqdäeldä'l
9	k'stēmä'c	k'stēmä'c	k'stēmä'c	k'ctēmssä'l
10	ky'ap	ky'ap	Hpē'el	Hpäl
11	ky'ap di ky'äk'	ky'ap di ky'äk'	Hpē'el di ky'e'el	Hpäl di ky'äl
12	ky'ap de t'Epqä't	ky'ap de t'Epqä't	ky'e'lbēl di ky'e'el	Hpäl di bag'adē'l
20	ky'e'lbēl wul gya'p	ky'iyē'tk'	ky'e'lbēl wul gya'p	} Class I.
30	gō'la wul gyap	gō'la wul gyap	gō'la wul gyap	

Class	5	6	7
	Canoes	Fathoms	Bundles of 10 Skins
1	kamä'et	ky'ilgä'h	gusky'ewa'
2	galbä'eltk's	ky'elbēlgä'h	gyilpwa'
3	gulä'altk's	gulälä'ō'n	—
4	tqälpqk's	tqälpqälö'n	—
5	k'stēnsk's	k'stēnsēlō'n	—
6	k'ä'eltk's	k'ä'eldēlō'n	—
7	t'Epqä'eltk's	t'Epqä'eldēlō'n	—
8	yuqdä'eltk's	yuqdä'aldēlō'n	—
9	k'stēmä'sk's	k'stēmäsēlō'n	—
10	ky'apk's	Hpä'ō'ndē	—
11	ky'apk's di kamä'et	Hpä'ō'ndē di ky'äk'	—
12	ky'apk's di galbä'eltk's	—	—
20	ky'iyē'tk's	—	—
30	ky'iyē'tk's di gyapk's	—	—

ORDINAL NUMBERS.

There are certain
ly clear to me, but
ative vocabulary—
I confine myself to
erial for a future
r as in Tsimshian.
classes are almost
Report, pp. 83, 84)

The first
The second
The third
The fourth
The fifth
The sixth
The seventh
The eighth
&c.

Animate
Kyskä'ä'ög'öt
tsogyē'lp'elt

Inanimate
tsögyē'elt
tsogyē'lp'elt
tsögdä'ält
tsötqälpq
tsök'stēns
tsök'ä'elt
tsöt'Epqä'elt
tsöyuqdä'elt

The numeral adverbs agree with the words used for counting round objects.

PRONOUN.

PERSONAL PRONOUN.

I, <i>nēk</i> .	me, <i>lā'k</i> .
thou, <i>nē'kn</i> .	thee, <i>lā'kn</i> .
he, she, it (present), <i>net</i> .	him, her (present), <i>lā'ót</i> .
" (absent), <i>nē'tgyé</i> .	" " (absent), <i>ésnō'tgye</i> .
we, <i>nōm</i> .	us, <i>lā'km</i> .
ye, <i>nk'ckm</i> .	ye, <i>lā'ckm</i> .
they (present), <i>nē'det</i> .	them (present), <i>lā'ódkt</i> .
" (absent), <i>nē'detgyé</i> .	" (absent), <i>lā'ódktgye</i> .

POSSESSIVE PRONOUN.

There is only one form for presence and absence, except that the latter has the general suffix designating absence *-gya*. The past is formed by the perfect prefix *tl-*, the future by *ckm-*: The house that I had, *tlhōi'ltē*; my future wife, *ckmna'kysē*.

my father, <i>neguā'edēk</i> .	our father, <i>neguā'edkm</i> .
thy father, <i>neguā'edkn</i> .	your father, <i>neguā'ekckm</i> .
his father, <i>neguā'ektt</i> .	their father, <i>neguā'edct</i> .

THE VERB.

INTRANSITIVE VERB.

The forms of the verb are also simpler than they are in Tsimshian.

I am sick, <i>sī'ēpk'neē</i> .	we are sick, <i>sīpsī'ēpk'nōckm</i> .
thou art sick, <i>sī'ēpk'nēn</i> .	ye are sick, <i>sīpsī'ēpk'nōckm</i> .
he is sick, <i>sī'ēpk</i> .	they are sick, <i>sīpsī'ēpk'</i> .

The perfect is formed by the temporal prefix *tlē-*, the future by *ckm-*.

Interrogative.

am I sick? <i>sī'ēpgunēia</i> .	are we sick? <i>sīpsī'ēpgunōckma</i> .
art thou sick? <i>sī'ēpgenēna</i> .	are ye sick? <i>sīpsī'ēpgunēna</i> (!).
is he sick? <i>sī'ēpguā</i> .	are they sick? <i>sīpsī'ēpguā</i> .

Negative.

I am not sick, <i>nīyi(di) sī'ēpguē</i> .	we are not sick, <i>nīyi(di) sīpsī'ēpguēckm</i> .
thou art not sick, <i>nīyi(di) sī'ēpguēn</i> .	ye are not sick, <i>nīyi(di) sīpsī'ēpk'ckm</i> .
he is not sick, <i>nīyi(di) sī'ēpguēt</i> .	they are not sick, <i>nīyi(di) sīpsī'ēpk'tet</i> .

TRANSITIVE VERB.

The transitive verb shows also small differences from the Tsimshian verb. I give the forms of the verb to kill—singular *dzak'*, plural *yadzi*—for the imperfect, which was not given in the description of the Tsimshian. The present tense is analogous to that of the Tsimshian.

—	I	thou	he	we	ye	they
<i>me</i>	—	<i>dzak'dēnēē</i>	<i>dzak'dētnēē</i>	—	<i>dzak'dēsemnēē</i>	<i>dzak'dētnēē</i>
<i>thee</i>	<i>dzak'dēnē'n</i>	—	<i>dzak'dētnē'n</i>	<i>dzak'dēmnē'n</i>	—	<i>dzak'dētnē'n</i>
<i>him</i>	<i>dzak'dē'ē</i>	<i>dza'k'dēn</i>	<i>dza'k'dēt</i>	<i>dza'k'dēckm</i>	<i>dza'k'dēckm</i>	<i>dzak'dē't</i>
<i>us</i>	—	<i>ya'dzinōm</i>	<i>yadzinōm</i>	—	<i>yadzeckmōckm</i>	<i>yadzeckmōckm</i>
<i>ye</i>	<i>yadzinē'ckm</i>	—	<i>yadzinē'ckm</i>	<i>yadzeckmē'ckm</i>	—	<i>yadzeckmē'ckm</i>
<i>them</i>	<i>ya'dzi</i>	<i>yadzen(nē'edct)</i>	<i>ya'dzet</i>	<i>ya'dzekm</i>	<i>ya'dzeckm-(nē'edct)</i>	<i>ya'dzedct</i>

The interrogative is formed by the suffix *-a*.

The imperative of the transitive verb is expressed by the second person of the indicative, that of the transitive verb by the suffix *-tl*.

eat, *yō'uqun*.

eat it, *gyiptl*.

I have obtained a considerable number of prefixes and suffixes, a list of which is given here.

Prefixes.

<i>an-</i>	abstract nouns.
<i>aq-</i>	without.
<i>agwi-</i>	outside.
<i>atida-</i>	in darkness.
<i>as-</i>	from middle to side of house.
<i>ba-</i>	uphill.
<i>da-</i>	with.
<i>dk-</i>	to cause.
<i>dkp-</i>	down.
<i>gwi-</i>	<i>nomen actoris</i> .
<i>gu's'kys-</i>	backward, one's self.
<i>gun-</i>	to cause an action.
<i>g'utgō-</i>	around.
<i>g'utl-</i>	about.
<i>gus-</i>	blanket.
<i>gyici-</i>	down river.
<i>gyini-</i>	left behind.
<i>gan-</i>	state of.
<i>gani-</i>	for good.
<i>g'ap-</i>	entirely, certainly, by necessity.
<i>g'ali-</i>	up river.
<i>gal-</i>	too much.
<i>hadin-</i>	along, lengthwise.
<i>ha-</i>	instrument.
<i>hagun-</i>	near by, toward speaker.
<i>haspa-</i>	inverted.
<i>hagul-</i>	slowly.
<i>his-</i>	to appear to be.
<i>hi-</i>	beginning of.
<i>i-</i>	with reduplication, action done during motion.
<i>ker-</i>	fluid.
<i>koem-</i>	woman.
<i>kei-</i>	out of.
<i>klē-</i>	all over.
<i>ky'edō-</i>	sideways.
<i>ky'ag-</i>	for a little while.
<i>kys-</i>	extreme (plural <i>da-</i>).
<i>k'a-</i>	more, comparative.
<i>k'aldin-</i>	in woods.
<i>k'alsi-</i>	through.
<i>kani-</i>	without interruption.
<i>kerq-</i>	only, without instrument.
<i>qpi-</i>	partly.
<i>q-</i>	accident happening.
<i>qs-</i>	resembling, sound of, called.

<i>qpi'lyim-</i>	forward.
<i>qtlem-</i>	around an obstacle.
<i>qtlna-</i>	bent forward.
<i>q-</i>	to eat.
<i>qtak-</i>	across middle.
<i>laq-</i>	to and fro.
<i>ligy'e'q-</i>	part of.
<i>libelt-</i>	against.
<i>leg'em-</i>	into, from top.
<i>leg'ul-</i>	for good.
<i>lō-</i>	on.
<i>lō-</i>	in.
<i>luktl-</i>	under.
<i>lō'a-</i>	in front of.
<i>lō'ks-</i>	strange.
<i>lēgan-</i>	over.
<i>man-</i>	upward.
<i>mēem-</i>	separate.
<i>mō-</i>	like.
<i>na-</i>	to break, come to.
<i>nōm-</i>	to desire.
<i>pelem-</i>	to attempt.
<i>spi-</i>	out of water towards land.
<i>se-</i>	to make something.
<i>sil-</i>	to accompany.
<i>ak'a-</i>	obstructive, sideways.
<i>staq-</i>	along.
<i>ca-</i>	off.
<i>t'am-</i>	from side of house to middle.
<i>tk'al-</i>	against.
<i>ts'ā-</i>	suddenly.
<i>tk'ō-</i>	around.
<i>tga-</i>	altogether.
<i>tgas-</i>	long thing.
<i>ts'em-</i>	in.
<i>ts'e'lem-</i>	into (from the side).
<i>tko-</i>	out of water.
<i>uko-</i>	left behind.
<i>ts'en-</i>	landward.
<i>ts'eg'em-</i>	away.
<i>will-</i>	away.
<i>wud'en-</i>	down to beach, out of woods.
<i>yag'a-</i>	down.
<i>yeg'as-</i>	stopping a motion.
<i>tleem-</i>	

Suffixes.

-ma dubitative.

-an to make.

-kat quotative.

A comparatively full grammar of the Tsimshian has recently been published by Count Dr. A. von der Schulenburg.

second person of the

otl.

2. THE TS'ETS'A'UT.

Unfortunately my informant Levi, the only one from whom I was able to obtain grammatical information, was exceedingly difficult to manage, and I did not succeed in making him understand that I desired to have Ts'ets'a'ut sentences and accurate translations. For this reason my material is very unsatisfactory, and does not permit an accurate description of the structure of the language. Besides this the Tinnéh phonetics are difficult, and Levi could not be induced to speak slowly, which circumstance made the work still more difficult. I give on the following pages a few remarks on the grammar, which will show what position the dialect takes among other Tinnéh dialects.

THE NOUN.

The noun has no gender. I did not find any indication of the existence of separate forms for dual and plural, although these occur in Loucheux, Hare, and Chippewayan. Cases do not exist.

Compound nouns are of frequent occurrence. They are formed by means of juxtaposition. Possession is often expressed by this means.

dirt, *kwutl'è fū'* (= sand-mud).
bear meat, *fu tsqa.*
female salmon, *tlmbé' èk'ò'.*

hoof of goat, *abra' aba'.*
top of tree, *ts'ù tlā.*

NUMERALS.

- | | |
|---------------------|--|
| 1. étliè'è. | 8. tqátqatliè'è. |
| 2. tlé'id'è. | 9. étli'tlā' hódunéé'è, étliad'unéé'è. |
| 3. tqádéd'è. | 10. tlóky'ada'. |
| 4. at'onéé'. | 11. tlóky'ada' étliè'è. |
| 5. étl'ada'. | 20. tléid'è tlóky'adé'. |
| 6. étltáts'è. | 30. tqádé tlóky'adé'. |
| 7. tléid'éthatlé'è. | |

THE PRONOUN.

PERSONAL PRONOUN.

I, *sqx'né.*
thou, *miné'.*
he, ?

we, *daqó'ò.*
ye, *daqó'né.*
they, ?

POSSESSIVE PRONOUN.

my, *és.*
thy, *né.*
his, *ma.*

our, *dā.*
your, *dā.*
their, *ma.*

Before words beginning with *k*, *és* becomes *iq*. For instance:
my house, *iq khò.*

THE VERB.

The verb is exceedingly difficult to understand, and the meagre material which I obtained from Levi is insufficient for a clear understanding of the subject. There are a number of classes of verbs, as will be seen by the following examples:—

to sing (*Petitot*, 2nd class).

I sing, *tsdji'.*
thou singest, *indji'.*
he sings, *mdji'.*

we sing, *daò'dji.*
ye sing, *daadji'.*
they sing, ?

to be ashamed (*Petitot*, 5th class).

I am ashamed, *òca'.*
thou art ashamed, *òna'.*
he is ashamed, *òna'(ka).*

we are ashamed, *da'òna.*
ye are ashamed, *da'ana.*
they are ashamed, ?

to be afraid.

I am afraid, *nésdjé'.*
thou art afraid, *néndjé'.*
he is afraid, *nédjé'.*

we are afraid, *dā'nédjé.*
ye are afraid, *danédjé'.*
they are afraid, *danédjé'.*

to be cold.

I am cold, *s̄istlu'*.
thou art cold, *sintlu'*.
he is cold, *s̄itlo'*.

we two are cold, *ned'itl'*.
we are cold, *d̄u'sitlo'*.
ye are cold, *qaat̄l̄o'*.
they are cold, *min̄itl̄o'*.

to speak.

I speak, *q̄usd̄u'*.
thou speakest, *qund̄u'*.
he speaks, *quid̄u'*.

we speak, *daq̄d'id̄u'*.
ye speak, *daq̄qad̄u'*.
they speak, *daq̄qad̄u'*.

The future is formed by the vowel *a*.

I skin it, *d̄istcoo'*.
I eat, *ist̄aq̄o'*.
I tear it, *n̄s̄at̄s̄d̄*.

I shall skin it, *d̄ustcoo'*.
I am going to eat, *d̄ist̄aq̄o'*.
I shall tear it, *n̄s̄at̄s̄d̄*.

The interrogative is formed by the suffix *-ya*:

art thou cold? *s̄ind̄l̄o'ya*.
has he got a wife? *nts̄ayd̄'ya*.

The negative is formed by the suffix *-d̄x̄b̄e'*:

I am not sick, *d̄s̄aai'd̄x̄b̄e'*.
I have no dog, *ist̄l̄s̄d̄x̄b̄e'*.

There are numerous irregular verbs, particularly verbs of motion, but my notes on this subject are very fragmentary:

to run.

I am running, *d̄s̄'istl̄'a*.
thou art running, *d̄s̄'intl̄'a'*.
he is running, *dat̄l̄'a'*.

we are running, *tl̄d̄x̄n̄s̄'id̄s̄*.
ye are running, *tl̄d̄in̄s̄'od̄s̄*.
they are running, *tl̄ai'n̄ad̄s̄*.

to swim.

I am swimming, *gȳina'sb̄e'*.
thou art swimming, *gȳina'mb̄e'*.
he is swimming, *gȳinab̄e'*.

we are swimming, *k̄'a'eb̄*.
ye are swimming, *gȳina'eb̄*.
they are swimming, *{ k̄and̄'o.*
{ gȳina'o.

I found only a few dual forms, but there is no doubt that many more exist.

I am sitting, *s̄ēda*.
we two are sitting, *s̄kȳo'*.
man sitting, *d̄ēid̄z̄'a'*.

run up, sing. *s̄ēitl̄'a*.
run up, dual, *s̄ē'a*.
run up, plural, *s̄ēd̄e*.

The prefixed pronouns of the various tenses differ in the same manner as in other dialects, but I have not been able, so far, to systematise the fragmentary material at my disposal.

The preceding remarks show, however, that the dialect of the Ts'ets'a'ut is more closely affiliated to the Chippewayan and Sarcee than to the Chilcotin and Carrier dialects.

re material which I
the subject. There
g examples:—

o'dji.
adji'.
?

amed, *da'ona*.
amed, *da'ana*.
shamed, ?

aid, *d̄a'nid̄j̄o*.
aid, *dan̄ad̄j̄o*.
fraid, *dan̄ēd̄j̄o*.

The following pages contain a comparative vocabulary of two dialects of the Tsimshian, the Tsimshian proper and the Nisk'a', and of three Tinnah dialects: the Taitan (Tahltan), Ts'ets'a'ut, and the Tkulhiyogā'ikc. The last of these is extinct. The tribe inhabited the Upper Willpah River, in the State of Washington, and is, therefore, the most northern of the great number of Tinnah tribes which are scattered along the Pacific coast. The dialect is, for this reason, particularly interesting. I am indebted to Major J. W. Powell, Director of the U.S. Bureau of Ethnology, for permission to publish the vocabulary of this tribe which was collected by George Gibbs in February 1856, and which is in the Library of the Bureau of Ethnology in Washington, D.C. Gibbs calls the tribe erroneously O'whil-lapsh (quillap), this being the name of the Chinook tribe of the Lower Willpah River. Their name in the Chinook language is Tkulhiyogā'ikc, which agrees with Anderson's name Kwā-whee-o-quā: their dialect seems to be almost identical with that of the Klatskanai. I obtained a few words on my last journey from an old Chinook woman, which I add to Gibbs's list. He introduces his vocabulary with the following remarks:—

G. GIBBS, Willopah, February 1886.

From an Indian at S. G. Fords.

'Of the Willopah tribe formerly inhabiting that river and the head waters of the Chihalis, there are, I believe, but two families left; from a man belonging to them I obtained the following:—

'He called his people O'whil-lapsh, the termination of which I should, however, judge to be of Chihalis origin. Their territory he called Whiláp-a-hai-you. The vocabulary was taken down in some haste, and, besides being incomplete, is not always altogether correct. Enough, however, is given to afford evidence of its character.'

'Mr. Anderson says: "The Kwal-whee-o-qua seem, from what I can learn, to have occupied the Willopah River and its tributaries towards the head of the Chihalis, and to have interlocked with the tribe who inhabited the country bordering on the Elokamin River. Their habits of life seem to have been very similar to those of the Klatskanai—the chase and an interior life for part of the year—resorting to the main rivers at certain periods to secure a supply of salmon."

The Tatltan vocabulary is reprinted from Dr. G. M. Dawson's report on that tribe ('Annual Report of the Geological Survey of Canada,' 1887, p. 191, B. ff.). The words in parenthesis in the Ts'Ets'a'ut vocabulary were obtained from Timothy, and differed from those obtained from Levi. The latter said in explanation that Timothy's father had come from Laq'uyi'p (Naqkyina), and that for this reason Timothy spoke slightly differently. The two vocabularies show clearly that Tatltan and Ts'Ets'a'ut are closely affiliated, but that certain regular changes of sounds occur, particularly *ts* in Tatltan becomes *f* in Ts'Ets'a'ut, and *l* is often replaced by *tg* or *tr*. Other changes are not so certain, and may be based on differences in perception and method of recording. It would seem that the Tkulhiyogoá'ikc resembles the northern dialects more than those of the interior of British Columbia, but I am not sufficiently familiar with the latter to satisfactorily judge on this point. In both the Tatltan and Tkulhiyogoá'ikc vocabularies I have retained the original spelling.

English	Tsimshian	Nisk'a'	Tatltan (Dawson)	Ts'Ets'a'ut	Tkulhiyogoá'ikc (Gibbs)
Man	ið'ot	gyat	den'-e	trané' (trü)	tee-e't-sun
Woman	haná'aq	hanak'	e-ga-tén'	aqadé'	whoo-ah-te
Boy	wómtik	—	etó-né'	itkyi'e	ske-e'u
Girl	—	—	'te-da	tlæ	—
Infant	gyiné'es	—	—	dwané' (dóné')	—
Father	négua'at	négua't	é-te'-uh	tlæ	(my-) s-tah
Mother	ná'e	noq	e-tl	é-il'é'e, idé', ná	" s'einah-na
Husband	naks	—	(my-) es-kuh-lé'-na	ts'aya'	" s'kud or s'kuda
Wife	naks	—	" es-tsi-yá'-na	kad'lá'e'	" s'aht
Son	—	—	" es-tshí-me	tcé'u	au-kwa
Daughter	—	—	" es-too'-eh	tqú	—
Elder	wegy	—	" es-tl-uh	qud'é'e	(my-) s'ohn - a - re'p
brother	tlæmkté'	—	" es-tshít'-le	étocé'è	" s'kel-te
Younger brother	—	—	—	—	—
Elder sister	—	—	e-tá'-ta	sá	—
Younger sister	—	—	(my-) es-té'juh	édiæ	" s'teh-tse
Head	témgá'us	t'émgré'c	" es-'tsí	atsé'	" s'nehn
Hair	grá'us	g'éo	" es-tsi-gá'	atsé'qa'	" se'ta'ch
Face	ts'al	ts'al	" es-né	triiné	—
Forehead	wápq	ópq	" es-tse'-ga	etsedá'	" s'ta'h-ke
Ear	mó	muq	" es-thés'-botl	dze'é	—
Eye	wul'e'l	ts'al	" ná'	adá' (trák)	" s'nah-rhe'
Nose	dz'aq	dz'ak'	" es-tshí	ctac'e	" s'ehts
Mouth	kutl'a'q	ts'émá'k'	" es-sá't'-a	asú'	" s'tah
Tongue	dá'ela	dé'li'h	" es-sá'	asú'sa	" soh
Teeth	ua'n	uá'n	" es-goo'h'	é'qó	" se-roh
Beard	émq	ié'mk'	" es-stane'-guh	á'qa	" stah-ra
Neck	t'émliá'né	t'émliá'ni'h	" es-kós'	akwó'	" squus
Arm	—	t'émk'á'h	" es-si-tlüh	agá'	" ska'h-ne
Hand	an'ó'n	an'ó'n	" es-sluh'	á'tla	" se-lá'eh
Fingers	—	katsuwé'énk's	" es-sluh' or slus-sé-guh	á'tla ts'a	" "
Thumb	más	mmás	slus-tshó'	á'tla tsqa	—
Little finger	—	sk é'ni'h	slus-tshed'-le	—	—

January 1866.

d waters of the
onging to them

ould, however,
a-hai-you. The
omplete, is not
of its character.
an learn, to have
of the Chihalis,
bordering on the
ar to those of the
rting to the main

s report on that
191, B. ff.). The
m Timothy, and
explanation that
for this reason
early that Tatitan
s of sounds occur,
placed by *tq* or *tr*.
in perception and
ke resembles the
mbia, but I am not
oint. In both the
mal spelling.

English	Tsimshian	Nisak'a	Tatitan (Dawson)	Ts'ets'a'ut	Tkukh'yogo'd'iko (Gibbs)
Nails	tléqs	tlak's	(my-) is-lá-gun'-a	á'tla k'ané, atigó'-na	" s'chu't-le
Body	—	ptlndq	(my-) jes-hla'	é'hle	—
Chest	k'á'yek'	k'etlk'	" es-tshán	édjutri/d (atré'ya)	(my-) s'chahn
Belly	bkn	ban	" es-bét	é'bé	" se'h-te
Female breast	—	na'da'lk's	ma-tó'-ja	t'á	—
Leg	—	t'Emtla'm	(my-) es-tshén-a	asri'e	—
Foot	ál	sa'-i	" es-kuh'	ékya'x	" akeh
Toes	—	katsuwé'xak's	" es-kus-tshó'	ékya'x ts'á	" akeh
Bone	sa'yup	—	" es-tsen'	atsare'na	" tsu'nn
Heart	k'á'ót	gr'á'ót	" es-tshéa'	ébv'a'x	" steh-yo
Blood	titlé'	itlk'á	e-ted-luh	adi'a	too'tl
Village	k'alts'a'p	k'alts'a'p	ké-yé'	hidaa'	—
Chief	sem'a'gyit	sem'a'gyit	tin-ti'-na	aneqa'	ks-ke'h
Warrior	—	wuld'gyitk'	e-ted'-etsha	—	(enemy ?) wuta-e'h-teu
Friend	nesé'banak'	nesé'b'xnak'	es-teln-é	—	—
House	hwálp	hwálp	ki-mah'	khó	kóte
Kettle	—	ndzam	'kótl	k'u'ió	chch-he-hats-kus-see
Boat	haukta'k'	haqda'k'	des-án	itue'	kl-toh-wa
Arrow	háwá'l	hawá'l	'kahl	k'a	—
Axe	dahr'tes	daw'l's	tsi-tl	dzé'ra	tl'ke-rúits'tl-tse'h-re
Knife	hatlsb'ésak	hatlsb'ésak	pesh	bé	tehe-ro'h (iron)
Canoe	qsá	mál	ma-lá'-te	nátla	tsé'h (generic)
Moccasins	ts'á'óqs	ts'á'wík's	e-tshll-e-kéh'	tsék'á'x	tl-na'ts-ee-ll
Pipe	aqpéya'n	haqmi'yá'n	—	k'áthú'	stah-wootl
Tobacco	wunda'	mi'yú'n	tsé-a-kh	k'á	suts-n'l-tus-see
Sky	laqha'	laqha'	ya-za	ya'd'a'	hook-kwili-le'h-ne
Sun	gyá muk	tlók's	tshá	fad'	hrah-tleh
Moon	gyá muk	tlók's	—	fa	hrah-tleh
Star	p'ia'ls	peil'st	SUHM	sró	kah-lessie
Day	sa	mesá'h	zeu-és	—	—
Daylight	—	—	yé-ká'	yakqa'	—
Night	hó'opel	aqk'	lh-klé-guh	é'tl'a's	tca-a'húte
Morning	k'antla'k'	hé'tluk	tskut-tshaw-tluné'	tsétsá'ótlqu'na	ka'h-hum-ta
Evening	skiyetlak's	sé'l	hih-gul'	qud'a'hia	teha-alu-ta
Spring	—	guá'yim	tá-nó'	—	—
Summer	sónt	sint	klí-we-guh'	trá'né	seh-nie
Autumn	keó'ót	k'sit	tá-tla'	—	—
Winter	k'átl	wul má'dem	ih-ha-yéh	qú tsé'	kwuts'e'h
Wind	púsk	ba'ask'	it-tel'	é'bv'e'	tlit-se'h
Thunder	kalaplé'em	tia'etk	it-ti-l-tshl'	óné'i	núil-ult-se-re'h
Lightning	ts'a'mti	ts'amth	kun-ta-tsél	uné da'	—
Rain	hwá's	haiw's	tshá	tsae	nar-reh-i'h
Snow	má'dem	má'dem	zus	qó	yuchs
Fire	lak'	lak'	kón	kwó	kwunn
Water	aks	akys	tsóo	tqó	toh, tsnah-nch
Ice	dá'u	dá'u	ten'	tqa	kwul-lo'h
Earth	dsá'atsaks	ts'á'ts'lk's	nén	nér	ne-e'h
Sea	laq mán	laqsé'ldé	é-étla	tqó tsqó	to-a'hr-ra
River	g'ala aks	g'alalakys	too-désá	tqó' ga	toh
Lake	—	t'aq	mén	máé	chus-ka'h-ne
Valley	tlkut'é'en	ts'amt'e	tá-gó's'-ke	mágaqaqó'	tsch
Prairie	—	laq'amá'k's	'kló'-ga	dúlit'amé'	tsch
Mountain	sqané'ist	sk'an'ist	his-tsho	tsé'nér	sus-kut
Island	lksad'a'	likysd'a'	ta-é-too-e	—	—
Stone, rock	láp	la'óp	tsé	tsha	sta'h-witl
Salt	mán	mó'ón	é-étla	—	—
Iron	t'ó'otak'	t'ó'tak'	pes-te-zin'	—	—
Forest	—	spátk'anga'n	got-é	—	—
Tree	k'an	g'an	til-gé-gut'	ts'ó	s'chinn
Wood	—	lak'	tsset-tsh-tsélsh	pfo	t'kinn
Leaf	ia'nes	ia'ns	e-táne'	á'trak	kutt
Bark	gyimst	má'és; gyi'm'	ed-lá	atlat'ó'u	s'kaith
Grass	(shredded)	Est (shredded)	—	—	—
Pine	kwyá'qt	hap'és'k'	klóáh	á'trak	k'ulhw
Flesh, meat	ca'mi'	amsgyini'st	gá-za	tséwá'há'	s'chunn
Dog	has	smah	e-tsét'	atsqa'	che-chunn
Bear	os	os	klí	tlé	klehl
Wolf	ól	ól	shush	fó	tlí-e-zun
Fox	kyebó'	kyibó'	tshí-yó-ne	éqa'	ne-nah-ta-lie
Deer	—	nag'atsé'	nus-tsé'he	—	—
Beaver	wan	wan	kliv-igana	qá'ra	yun-a'hí-yil
—	sts'al	ts'Emé'lih	tshá	tsaz	(white - tailed deer)
—	—	—	—	—	no'-ne-yeeh

English	Tsimshian	Nisak'a	Tatitan (Dawson)	Ts'ets'a'ut	Tkukh'yogo'd'iko (Gibbs)
Nails	tléqs	tlak's	(my-) is-lá-gun'-a	á'tla k'ané, atigó'-na	" s'chu't-le
Body	—	ptlndq	(my-) jes-hla'	é'hle	—
Chest	k'á'yek'	k'etlk'	" es-tshán	édjutri/d (atré'ya)	(my-) s'chahn
Belly	bkn	ban	" es-bét	é'bé	" se'h-te
Female breast	—	na'da'lk's	ma-tó'-ja	t'á	—
Leg	—	t'Emtla'm	(my-) es-tshén-a	asri'e	—
Foot	ál	sa'-i	" es-kuh'	ékya'x	" akeh
Toes	—	katsuwé'xak's	" es-kus-tshó'	ékya'x ts'á	" akeh
Bone	sa'yup	—	" es-tsen'	atsare'na	" tsu'nn
Heart	k'á'ót	gr'á'ót	" es-tshéa'	ébv'a'x	" steh-yo
Blood	titlé'	itlk'á	e-ted-luh	adi'a	too'tl
Village	k'alts'a'p	k'alts'a'p	ké-yé'	hidaa'	—
Chief	sem'a'gyit	sem'a'gyit	tin-ti'-na	aneqa'	ks-ke'h
Warrior	—	wuld'gyitk'	e-ted'-etsha	—	(enemy ?) wuta-e'h-teu
Friend	nesé'banak'	nesé'b'xnak'	es-teln-é	—	—
House	hwálp	hwálp	ki-mah'	khó	kóte
Kettle	—	ndzam	'kótl	k'u'ió	chch-he-hats-kus-see
Boat	haukta'k'	haqda'k'	des-án	itue'	kl-toh-wa
Arrow	háwá'l	hawá'l	'kahl	k'a	—
Axe	dahr'tes	daw'l's	tsi-tl	dzé'ra	tl'ke-rúits'tl-tse'h-re
Knife	hatlsb'ésak	hatlsb'ésak	pesh	bé	tehe-ro'h (iron)
Canoe	qsá	mál	ma-lá'-te	nátla	tsé'h (generic)
Moccasins	ts'á'óqs	ts'á'wík's	e-tshll-e-kéh'	tsék'á'x	tl-na'ts-ee-ll
Pipe	aqpéya'n	haqmi'yá'n	—	k'áthú'	stah-wootl
Tobacco	wunda'	mi'yú'n	tsé-a-kh	k'á	suts-n'l-tus-see
Sky	laqha'	laqha'	ya-za	ya'd'a'	hook-kwili-le'h-ne
Sun	gyá muk	tlók's	tshá	fad'	hrah-tleh
Moon	gyá muk	tlók's	—	fa	hrah-tleh
Star	p'ia'ls	peil'st	SUHM	sró	kah-lessie
Day	sa	mesá'h	zeu-és	—	—
Daylight	—	—	yé-ká'	yakqa'	—
Night	hó'opel	aqk'	lh-klé-guh	é'tl'a's	tca-a'húte
Morning	k'antla'k'	hé'tluk	tskut-tshaw-tluné'	tsétsá'ótlqu'na	ka'h-hum-ta
Evening	skiyetlak's	sé'l	hih-gul'	qud'a'hia	teha-alu-ta
Spring	—	guá'yim	tá-nó'	—	—
Summer	sónt	sint	klí-we-guh'	trá'né	seh-nie
Autumn	keó'ót	k'sit	tá-tla'	—	—
Winter	k'átl	wul má'dem	ih-ha-yéh	qú tsé'	kwuts'e'h
Wind	púsk	ba'ask'	it-tel'	é'bv'e'	tlit-se'h
Thunder	kalaplé'em	tia'etk	it-ti-l-tshl'	óné'i	núil-ult-se-re'h
Lightning	ts'a'mti	ts'amth	kun-ta-tsél	uné da'	—
Rain	hwá's	haiw's	tshá	tsae	nar-reh-i'h
Snow	má'dem	má'dem	zus	qó	yuchs
Fire	lak'	lak'	kón	kwó	kwunn
Water	aks	akys	tsóo	tqó	toh, tsnah-nch
Ice	dá'u	dá'u	ten'	tqa	kwul-lo'h
Earth	dsá'atsaks	ts'á'ts'lk's	nén	nér	ne-e'h
Sea	laq mán	laqsé'ldé	é-étla	tqó tsqó	to-a'hr-ra
River	g'ala aks	g'alalakys	too-désá	tqó' ga	toh
Lake	—	t'aq	mén	máé	chus-ka'h-ne
Valley	tlkut'é'en	ts'amt'e	tá-gó's'-ke	mágaqaqó'	tsch
Prairie	—	laq'amá'k's	'kló'-ga	dúlit'amé'	tsch
Mountain	sqané'ist	sk'an'ist	his-tsho	tsé'nér	sus-kut
Island	lksad'a'	likysd'a'	ta-é-too-e	—	—
Stone, rock	láp	la'óp	tsé	tsha	sta'h-witl
Salt	mán	mó'ón	é-étla	—	—
Iron	t'ó'otak'	t'ó'tak'	pes-te-zin'	—	—
Forest	—	spátk'anga'n	got-é	—	—
Tree	k'an	g'an	til-gé-gut'	ts'ó	s'chinn
Wood	—	lak'	tsset-tsh-tsélsh	pfo	t'kinn
Leaf	ia'nes	ia'ns	e-táne'	á'trak	kutt
Bark	gyimst	má'és; gyi'm'	ed-lá	atlat'ó'u	s'kaith
Grass	(shredded)	Est (shredded)	—	—	—
Pine	kwyá'qt	hap'és'k'	klóáh	á'trak	k'ulhw
Flesh, meat	ca'mi'	amsgyini'st	gá-za	tséwá'há'	s'chunn
Dog	has	smah	e-tsét'	atsqa'	che-chunn
Bear	os	os	klí	tlé	klehl
Wolf	ól	ól	shush	fó	tlí-e-zun
Fox	kyebó'	kyibó'	tshí-yó-ne	éqa'	ne-nah-ta-lie
Deer	—	nag'atsé'	nus-tsé'he	—	—
Beaver	wan	wan	kliv-igana	qá'ra	yun-a'hí-yil
—	sts'al	ts'Emé'lih	tshá	tsaz	(white - tailed deer)
—	—	—	—	—	no'-ne-yeeh

English	Tsimshian	Niska'	Tatitan (Dawson)	Ts'ets'á'ut	Tkulhiyogoá'ike (Gibbs)
<i>Rabbit</i>	—	—	guh	k'raq	—
<i>Fly</i>	—	—	tsi-méh	tlátra'	—
<i>Mosquito</i>	gy'tek	biá'sk	tsi	dzesdáz'	—
<i>Snake</i>	matqalá'ltq	laekt	—	—	ke-ru'ss
<i>Bird</i>	ts'ó'wots	ts'óts	tsi-méh	—	na'ht-ke (a winged thing !)
<i>Egg</i>	—	tlgyima't	é-ga-zuh'	—	che-reh-zie
<i>Feathers</i>	li	laq	ts'hósh	á'qa	ch'óhts-kwu
<i>Wings</i>	k'ák'á'i	k'ak'á'h	mi-l-tséne	má't'a	ch-na'ht-keh
<i>Goose</i>	há'aq	hak'	gán-jeh	dáwa'k'	—
<i>Duck (Mallard)</i>	mé'ek	neqná'q	too'-deh	nesna'q'	haat-hat (= Naska-wali)
<i>Fish</i>	luw'e'lem	luw'e'lem ts'em-	klew'-eh	—	—
	ts'ém aks	akyo	—	—	—
<i>Salmon</i>	hán	hán	klew'-eh	tlema'	(spring salmon) see-loh-kwa
<i>Name</i>	wá	wa	on-yeh	—	teho-se'h
<i>White</i>	maks	ma'nuka'	ta-kád'-le	dak'alá'	kl-kwe'e-yeh
<i>Black</i>	t'ó'otok	t'ótsk'	ten-es-klá'-je	dé'nestl'ema	kluz-zun-ne
<i>Red</i>	mesk	itlá'etk'	te-tsi-je	désse'la	kl-che'h-ke
<i>Blue</i>	kuskua'sk	qgusguá'ók's*	te-tlesh'-te	—	kluz-zun-ne
<i>Yellow</i>	mstlé'itk	qslé'tg'al-má'sk'	tsim-tlet	déstsqá'wé	—
<i>Green</i>	mstlé'itk	mstlá'tk'	tsim-tlet	déstsqá'wé	tch-zu'm-me
<i>Great, large</i>	wi	wi	e-tsho	ntsqa'	ó-é'h
<i>Small, little</i>	tlgua	tlgua	ta-a-tsed'-le	utsá'z	nwe'hl-e
<i>Strong</i>	—	daqgyat	na-tó-yi	ade'ntsqa	nu-me'h
<i>Old</i>	wud'á'gyat	wud'aqgyat	es-tshán	sá'na'	tsunn (bad or worn)
<i>Young</i>	copac	qa'ema's	es-kí-uh	déguanahá'	ahr-re-yie (new)
<i>Good</i>	ám	ám	e-tí-uh	a'tawa	ne-zo'-a-nie
<i>Bad</i>	hada'q	hada'q	tshá'-ta	tsa'at'é	n'tsun-ne
<i>Dead</i>	ts'ak	nó	a-juh'	texzá't'a	re'h-to-eh
<i>Alive</i>	dó'els	dédels	te-tshí'	—	tah-ke-re'h-to-eh (not dead)
<i>Cold</i>	kua'tkó	guná'qk'	hós-tli'	qusq'a's	kose-kwut-sie
<i>Warm</i>	gyá'muk	gyá'muky	hos-sitl'	qusko'n	kl-ko'-ne
<i>I</i>	né'rió	né'te	shi-ni	tsq'ne'	shik
<i>Thou</i>	né'ren	né'kn	nin-e	nené'	nuk
<i>He</i>	né'edlet	net	a-yi-ge	—	—
<i>We</i>	né'rem	nón	ta-hun'-e	taqo'n	naí'-yook
<i>Ye</i>	né'reem	né'kem	klá'-tse	taqona'	hon-ne'k
<i>They</i>	né'edlet	né'dst	—	—	—
<i>This</i>	—	tgón	ti-te	—	che-ka'nn
<i>That</i>	—	tgóst	a-yi-ge	—	che-tu'k
<i>All</i>	tqani	tqané'tk'st	sé-tee	daqó'ó(?)	a-wa'ht-hlo
<i>Many</i>	há'idés	héld	oo-tla'	its'á'ada	klah-ne'
<i>Who</i>	ó'o	ná	ma-dal-e	máE	tsal-in
<i>Far</i>	d'á	nak'	ni-sá-te	itlya	ne-za'ht-so-neh
<i>Near</i>	—	délpk'	hah'-ne	wuhl'ya	che-kehn-tis-tie
<i>Here</i>	yá'gua	tgón	tis-tsik	ahí'ya (?)	—
<i>To-day</i>	séigya'wun	sagón	too'-ga	adó'	tehut-seh-nie
<i>Yesterday</i>	gyets'é'ip	ky'á'óts	kit-só'-kuh	idragia	kun-tahn
<i>To-morrow</i>	tsegyets'é'-ip	t'atlak'	tsha-tshá'	tsatsá'	kl-ka'hu-te
<i>Yes</i>	ó	nét	éh	ás	kli-ne'li-ko (? cer-tainly)
<i>No</i>	atlge	né	ti-wuh	débé' (dó'wé)	lak-ke
<i>One</i>	See grammatical notes		ti-geh'	éti'é'	kle-e'h
<i>Two</i>	"	"	tin-kéh	tlé'nd'	na'ht-keh
<i>Three</i>	"	"	tá-té'	tqáué'd'	tah-keh
<i>Four</i>	"	"	klen-teh'	at'óné'	tun-cheh
<i>Five</i>	"	"	klo-diá'	éti'á'na'	la-ahit-la
<i>Six</i>	"	"	na-sliké'	éti'táts'é'	ks-la'h-neh
<i>Seven</i>	"	"	na-sla-kéh'	tléid'éthatlé'	che-te'h-heh
<i>Eight</i>	"	"	na-stá'	tqátqatlé'	che'h-na-wah
<i>Nine</i>	"	"	na-sten-teh'	éti'ad'uncé'	kws'ta'h-heh
<i>Ten</i>	"	"	tsa-sná'-ne	tlóky'ada'	kwín-eh-she-a ; klutch-ehi-teho.
<i>Twenty</i>	"	"	ten-tlá-dih-teh'	tléid'é tlóky'adé'	nahtklitch-e'hl-tcho
<i>To eat</i>	yá'wiq	yó'ókq'	et-ét-et'	tsqa'	tsah-ne
<i>To drink</i>	aks	akys	et-oo-tán-en-e	tqó híné'saé (thou-)	ts'nah-ne
<i>To run</i>	baq	baq	kis-too-tshé-ane	tl'a	tehl-chul

Snow colour. * Iron colour. * Blood colour. * Blue jay colour. * Colour of inside of crab.
 * Gall colour. * Loaned from Niska'. * Loaned from Tlingit.

Tkulhiyogoā'ike
(Gibbs)

ke-ru'as
na'ht-ke (a winged
thing !)
che-reh-zie
ch'ohts-kwu
ch-na'ht-keh
—
haat-hat (=Nsk-
wail)

(spring salmon)
see-loh-kwa
tcho-se'h
kl-kwe'e-yeh
kluz-zun-ne
kl-che'h-ke
kluz-zun-ne

tch-zu'm-me
ō-e'h
nwhe'le
nu-me'h
tsunn (bad or
worn)
ahr-re-yie (new)
ne-zo'-a-nie
n'tsun-ne
re'h-to-eh
tah-ke-re'h-to-eh
(not dead)
kose-kwut-sie
kl-ko'-ne
shik
nuk

—
nal'yook
hou-ne'k
—
che-ka'nn
che-tu'k
a-wa'ht-hlo
klah-ne'
tsal-in
ne-za'ht-so-neh
che-kehn-tis-tie
—
tehut-seh-nie
kun-tah
kl-ka'hu-te

kl-ne'h-ko (? cer-
tainly)

lak-ke
kle-e'h
na'ht-keh
tah-keh
tun-cheh
la-ah't-la
ks-la'h-nch
che-t'e'h-beh
che'h-na-wah
kws'ta'h-beh
kwín-eh-she-a;
klutchehl-tcho.
na'htklitch-e'hl-
tcho
tsah-ne
ts'nah-ne
—
tehl-chul

four of inside of erab.
lingit.

English	Tsimshian	Niska'	Tatitan (Dawson)	Ts'ets'a'ut	Tkulhiyogoā'ike (Gibbs)
To dance	halá'it	halá'it	en-dlě'	—	ne'h-tci's-to
To sing	li'emí	li'mit	en-tshín	djě	stah-whel-lum
To sleep	qstóq	wók'	nes-tétl'	s—thě	n'teh-la-to
To speak	a'gyaq	a'gyiq	hun-těh	qundě'	yah'tl-st-keh
To see	ně	gyě	nat-si	ědě'n'ě	náh-ta-res-to
To love	sebá'n	—	na-ca-tlook'	dínhě'	—
To kill	ds'ak	d'ak'	tsin-hia'	děneh'ya	noo-ne'k-la-rah
To sit	d'a	d'a	sín-tuh'	sindá'	ne'ht-sa-to
To stand	há'yitk	hětk'	nun-zit'	něnsqě'	ne'k-luk-sto
To leave	dá'wult	k'stak's	un-tih' (to go)	niqndó'sa canoe	teh-a's-to (to go)
To come	ká'ědeks	á'děskysk'	a-něh'	aquně'	neh-as-to
To walk	—	—	yes-shá'-dle	—	nah-ya
To work	—	—	ho-ya-estluh'	—	—
To steal	—	lě'tuks	en-a-l	an'ě	—
To lie down	nág	gyětl	—	nóstě'	—
To give	gyenám	gyinám	me-ga-ni-áh'	na	—
To laugh	sis'a'qs	his'a'qs	na-is-tlook'	gyěmtqó'	—
To cry	wihá ut	wuyitk'	eh-tshih	ěfa'	—

Additional Words in Gibbs's Vocabulary of the Tkulhiyogoā'ike.

my son, au-kwa.
lad, sk-e'h; as when an Indian chief
talks of his young men, i.e. his un-
married followers, he terms them
See-sk-e'h, my boys or lads.

Indians, people, kwun-a-runt.
my eyebrow, sne'hts-eh-le.
my thigh, so-ru's.
calf of my leg, sku't-ta.
cedar, kl-sklo-ne-ye.
oak, tsoo-we'h.
fat, che-kuch.
buffalo, moos-e-moos-he (Chinook).
prairie wolf, sul-i-kul (sin-e-kul Chehalis).
black-tailed deer, woon-ins-kunnie.
male elk, t'chest-hu.
female elk, tseh-a-ka-you.
tortoise, wit-la-hoh (it-lah-wa, Chinook).
pigeon, hum-ehm (hum-o'h, Nisqualli).
winter salmon, see-ahie.
surgeon, waz-e-te'h-nie.
land otter, che-leh-zie.
cougar, wutche-nai-kul.
wild cat, wun-el-käits-le.

raccoon, kwa'hlas.
fawn, till-kah.
calf of elk, chaht-la-zoo-lie.
tamanous of medicine, tee-e'nn.
tamanous of feasts, tseh-kwa'ss.
small hairqua, ret-eh-sie.
large hairqua, te-ko-et-sie.
plank, klush-ts.
basket, hah-tsa.
gun, shwool-wool-tch-re.
Chinook canoe, kl'whee'-at.
year, tl-ne'h-ta
handsome (good), n'zo'-an.
ugly (bad), nt-sunn.
eleven, kwín-eh-she-a choot-tle-e'h.
twelve, kwín-eh-she-a choot-na'ht-keh.
thirty, tah klitch-e'hl-tcho.
one hundred, kwan-ne-san-ne-tchehl-
choot.
hungry, tche'h-a.
thirsty, za-re'hl-tcha.
G—d—n you, cheh-sl-ka'hne.
thank you, che-nál-yah.
thank you very much, see-ná-chál-yah

Words of the Tkulhiyogoā'ike obtained from 'Catherine,' 1894.

water, tō (Gibbs: toh).
sky, yā.
salmon, ka'mō's.
bear, ts'Iseně (Gibbs: til-e-zun).
dog, na'ttaii (Gibbs: klehl).

old woman, stsiā'ně.
pole for poling canoe, tek'u'lk'ulě.
come! nē'astō (Gibbs: neh-as-to).
give me! sqā'dō.
give me water to drink! qatō'ě'tlto tō.